Lectures ON DISEASES OF THE NERVOUS SYSTEM.

Delivered at the Westminster Hospital,

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LECTURE IX.—PART I.

GENTLEMEN,—To-day we have to consider a nervous disease which offers some of the most interesting as well as some of the most difficult problems that are to be met with in the whole field of pathology—namely, chorea, otherwise called St. Vitus's dance, or danse de St. Guy. There are sundry affections more or less closely allied with the typical disorder of which I am about to speak, and by some authors these allied disorders are spoken of as varieties of chorea; but although a strict adherence to the etymological origin of the word would justify this arrangement, I prefer to limit the use of the word chorea to the common and easily recognisable disease which is continually presenting itself in practice. It was, doubtless, an error of judgment which led Bouteille (in 1810) to apply this word—which means simply a *dance*—to the common disease, for it describes far better certain other and rarer disorders. But it is now quite hopeless to expect the disuse of this term for the ordinary disease; and the other—and more truly dance-like—affections have such important points of distinction from it, that they ought to receive separate names, for the avoidance of confusion.

Chorea, then, as we meet with it usually in hospital and private practice, may be described in general terms as a convulsive affection, characterised by continually repeated involuntary movements of one or more of the limbs, or contortions of the facial muscles, or jerking movements of the head, or spasmodic writhings of the body, or spasmodic actions of the lingual or laryngeal muscles or of the diaphragm—sometimes of all these at once, or alternately. The movements may be very little or not at all under the control of the will in waking moments, but they cease entirely (save in very exceptional cases) during sleep. The distinguishing characteristic of the movements in *true* chorea is their entire want of co-ordination for any of the usual purposes of voluntary muscular motion, so that, instead of assisting, they seriously interfere with the movements required in daily life. The confirmed choreic patient can neither dress nor feed himself; he cannot button his clothes, pick up any small object or retain anything which he takes in his hand; cannot manage his knife and fork, or carry a cup to his lips without spilling its contents. This general rough description will serve to recall to all your minds cases of chorea which you have seen here or elsewhere.

Proceeding with the more accurate description of the disease, we come first to the fact that chorea is, on the whole, a malady of that period of life which lies between the second dentition and the age of eighteen or thereabouts.* But in the first place it must be noted that even first attacks will occasionally occur at much more advanced periods of life—to take an extreme case, M. H. Roger records a well-marked example in a lady aged eighty-four years; and secondly, that persons who have suffered chorea in youth are sometimes subjected to it again in middle or advanced life, under the influence of certain disturbing or depressing emotions, or as a consequence of prolonged and exhausting illnesses, or of certain physiological crises, such as pregnancy and the change of life. The question of age must be considered again at a later stage. Meantime, let me describe the phases of ordinary chorea, such as I shall often have to show it to you in the wards of the hospital.

1. By far the commonest form of ordinary chorea is that which we see in young children, say of eight or ten years. There is usually something delicate in the appearance of these patients; yet this is by no means always the case, and not a few of the sufferers have actually the appearance of blooming health. The choreic movements begin, in the majority of cases, on one side of the body, and most commonly in the arm. Moreover the left side is far more frequently the seat of the original attack than the right; and in the wards you will very frequently see choreic children sitting in a characteristic attitude—namely, grasping the left wrist with the right hand, to prevent the movements of the left arm. Gradually the movements spread to the leg of the side first affected; and often about this time slight facial grimaces, and momentary jerkings of the neck-muscles, with perhaps some little affection of the tongue-muscles, are noted. The tongue may be protruded with a jerk—a symptom which has been much dwelt upon, but is not so common as many writers would have us to suppose. In a very large number of choreic cases there is no tendency at all to spasmodic protrusion, but rather to a partial disability in all the motions of the tongue. Stammering, which is a not unfrequent symptom, must be discussed at a later stage of this lecture. In a large number of cases the movements remain limited to one side of the body: this is called "hemichorea."

The convulsive jerkings, however, although they are the symptom which most attracts the eye, by no means indicate the whole extent of the affection even of the motor nerve-supply. If you test the power of any given muscle or group of muscles which are choreic, you will find it notably enfeebled, the degree of weakness corresponding pretty accurately to the amount of choreic affection. In the case of the leg (especially in hemichorea) this weakness is often plainly shown by the patient's dragging the limb in walking. It is remarkable that, as a rule, the symptoms of diminished power vanish simultaneously with the abnormal movements; though you will hear of exceptions presently.

When we are able to gather exact particulars of the illness from its beginning, we commonly find that the invasion was very gradual. It is true that violent emotion, especially fright, does often precipitate, or apparently even altogether produce, a choreic attack; but I doubt not that by far the most of these patients were already predisposed to chorea, and that many of them had actually had slight and unnoticed symptoms before the occurrence of the shock which is regarded as the exciting cause. Often we find that the system had been previously weakened by an acute illness, and most frequently this illness was acute rheumatism, the connexion of which malady with chorea is so important that we must presently investigate it separately.

In the simplest cases of chorea, such as we have just been considering, there is a very strong tendency to spontaneous recovery. A great number of these patients pass through all the stages of their malady in some four, six, or eight weeks, even if nothing be done in the way of medicinal treatment. But if, from one cause or another, the disease remains substantially unchanged at the end of three months, it must be reckoned (as Jaccoud well observes) among the obstinate choreas, and is likely to give much trouble unless we are able to interfere with it by some decisive treatment. It is especially unfortunate if chorea drags on towards the time at which puberty naturally begins. The already enfeebled nervous system, caught in the new storm which now agitates the organism, is nearly certain to relapse, and perhaps more severely than before, into the ataxic manifestations of chorea.

2. This brings us to the consideration of a second variety, in which chorea evidently takes its first start from the changed condition of things which has been brought about by the establishment of puberty; and I beg your particular attention to the important differences which separate this variety of the disease from that which has been already described. Chorea which first takes its rise in the turmoil of sexual development is not only far more likely to prove severe, intractable, or even dangerous to life, than the earlier disease, but has a considerable tendency to be followed by permanent damage to the nervous system, which may show itself in other

* Sydenham says that it usually comes on between the tenth and the fourteenth year. Trousseau says usually between the sixth and the fifteenth. Paul Robert, between the tenth and the sixteenth. Sée informs us that of 191 choreic patients, whose whole history was carefully ascertained, 11 were below six years, 94 between six and ten, 57 between eleven and fifteen, 17 between fifteen and twenty, 12 between the ages of twenty-one and sixty, at the time of the first attack. Thus, he says, the real maximum was between the ages of six and eleven, and especially in the tenth year.

than choreic phenomena. It is among this class of choreic patients that we first meet with those severe and alarming cases which are spoken of *par excellence* as *acute* chorea. In these the muscular movements are neither slight nor limited; on the contrary, they speedily involve the whole voluntary muscular system, and assume the most pronounced character. Limbs, head, and trunk are in perpetual and violent motion; walking or standing is impossible, and the patient can hardly be kept in bed without being fastened down. The mental agitation becomes excessive, and sleep is impossible. In the worst cases the incessant chafing of the limbs against each other, and against surrounding objects, produces sores, inflammations, and even extensive suppurations, that add greatly to the misery and exhaustion of the patient. Meantime she (for it is almost always a girl) cannot swallow, and unless feeding can be regularly performed per rectum, the mere starvation will quickly prove fatal. Delirium, of a more or less maniacal kind, attends such cases towards their termination.

Besides these extremely severe cases, in which the tendency is towards a speedily fatal end, the chorea of sexual development occurs in less pronounced but still very intractable forms. Should there be considerable difficulties in the establishment of a regular and sufficient menstruation, and especially if there is a tendency to neuralgic ovarian dysmenorrhœa, the case is very apt to become complicated with hysteria; and, once the hysterical attitude of mind is superadded to the chronic ataxy of muscles, the patient is placed in a situation in which the nervous system will have great difficulties in reacquiring a healthy equilibrium. I shall have something important to say presently, under the head of etiology, as to the extremely disastrous influence of conscious sexual irritation upon the choreas of early sexual life; and I may here remark that such irritation may induce puberty precociously, and that the unhappy children whose minds have been unnaturally turned thus early to sexual ideas are apt to have chorea, if at all, in a form which resembles that just described as pertaining especially to a later period.

There are two other incidents of sexual life which, though in a feebler degree than the development of the sexual organs and feelings, may provoke chorea—namely, pregnancy and the "change of life." It is not often, I believe, that first attacks of chorea occur under either of these circumstances, unless some powerful emotional cause be also at work. Usually the chorea of pregnancy and the rarer chorea of uterine involution, are mere reappearances of a tendency which had already manifested itself in childhood. But occasionally we meet with persons of neurotic temperament and family antecedents, in whom the state of pregnancy keeps the nervous system in so unstable a state that the occurrence of any physical, or especially any emotional, shock at once evokes choreic troubles. Occasionally it has happened that the choreic agitation was exceedingly severe, and either killed the patient or induced premature labour.

On the whole, then, we may clinically divide the choreas proper into two main groups—those of childhood and those of sexual life. (One might add a third group of cases, extremely small in number, which occur in advanced life, and are evidently a consequence, though an unusual one, of the degenerative processes peculiar to old age.) The choreas of childhood are mainly of a mild and curable kind, though with a tendency to relapse, sometimes two, three, or four times, but usually ceasing altogether before very long. The choreas of sexual life are, as a rule, more deeply rooted in the nervous system, are apt to be more extensively complicated, and have in most cases a more serious prognosis than the former class.

The pathology and causation of chorea form one of the most puzzling subjects that medical inquiry has ever encountered. When we have stated the very obvious facts that chorea is a disease of some portion of the central nervous system, and that the circumstances evidently favouring its occurrence are all of them of a debilitating kind, we have said very little, as you will allow. It is something to know, in addition, that chorea is very strictly bound up with the inherited disposition to neurotic disease. But when we have got so far, we are confronted with the most formidable difficulties, which may be expressed by the following questions:—(1) Is the pathological seat of chorea always the same, and if so, is it spinal or encephalic? (2) Is the pathological process always of the same general nature, and if so, of what nature? (3) What is the degree and kind of connexion between rheumatism and chorea?

1. As to the pathological seat of chorea. The older belief, that chorea was dependent upon spinal cord irritation, has of late years been pretty much set aside, more especially in this country. Dr. Reynolds some twenty years ago brought forward a very able series of arguments to prove that the phenomena did not correspond with the idea of a spinal origin of the disease: he argued that the persistent *clonic* character of the spasms, the partial control which the will has over them, the cessation of the movements during sleep, and the fact that emotional changes and attempts at volitional action induce or aggravate the spasms, are totally opposed to the spinal theory. Dr. Broadbent followed this up a few years ago, by adding to Reynolds's arguments the following:—Tickling of the hand or sole of the foot does not exaggerate choreic movements—indeed, there sometimes seems to be a lessened reflex irritability. And, again, the more or less unilateral character of the affection, in such a large number of choreic patients, is highly inconsistent with the spinal theory. The whole argument taken together seems to point rather strongly to the view originally put forward by Reynolds, that the pathological seat of chorea is the sensori-motor ganglia at the base of the brain, the corpora striata and optic thalami.

To this opinion as to the seat of the pathological change, Dr. J. Hughlings Jackson also agreed, but, as I shall have to mention presently, he adopted a theory as to a uniform pathological process in the encephalic sensori-motor ganglia which is not endorsed by Dr. Broadbent.

Not to dwell in detail upon the various doctrines that have been expressed, I may mention that M. Jaccoud holds, and very ably states the opinion,* that a certain portion of the spinal cord is the true seat of chorea. He remarks that chorea is a perversion of muscular co-ordination; and he expresses the conviction that there is no *single* centre of co-ordination, but that the "elements" for that function extend† the whole length of the spinal cord, as far as the pons Varolii. It is this apparatus which, according to Jaccoud, is morbidly affected at some point in its length in the majority of cases. The few examples of chorea in which he will admit the possibility of a primary lesion in the sensori-motor ganglia are to be explained on the theory that the encephalic lesion only takes an indirect part in the production of the chorea.

2. As regards the nature of the pathological process which produces chorea, there have been various opinions. The number of opportunities for post-mortem examinations of persons (either actually or within a short distance of time) suffering from chorea is very limited. In a considerable proportion of those which have been made, no lesion whatever of any importance or significance has been discovered; though, of course, in many of the old examples there is the possibility that the observer was incompetent to discover the lesion. Until comparatively recent years the principal lesions which had been observed were congestions of cerebral or spinal meninges; subarachnoid spinal effusion; and (occasionally) patches of softening in the brain. But for some few years past one theory has occupied the principal attention of the scientific world—viz., the embolic theory of Dr. Jackson. This author supposes that chorea is linked essentially with embolic obstructions of some of the bloodvessels supplying the corpus striatum; the effect of this interference with the supply of nutrition being to create an instability of voluntary movement which is a minor degree of that complete interference which would be represented by paralysis. The embolic theory of chorea has attracted a remarkable degree of attention. It was elaborated in a most careful manner, and its author has connected it, in a very ingenious way, with similar explanations of other phenomena presumably dependent on lesions of the corpora striata and the neighbouring parts. Of late, however, it has been widely felt that this theory is incapable of universal application—that it can, at most, but explain a comparatively limited number of cases. There is one objection urged against it by Jaccoud, which, though stated perhaps in too absolute a manner, is highly important. Jaccoud says that choreas, when unilateral, is

* See his last series of "Leçons de Clinique Médicale," Paris, 1873.
† "Sont échelonnés."

nearly always left-sided; whereas embolism of the cerebral arteries by far the most frequently occurs in the left corpus striatum or its neighbourhood, so that the resulting chorea should be *right-sided*, which is just what it is not, except in a minority of cases.

Lectures ON FIBROID TUMOURS OF THE UTERUS.

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LECTURE I.—PART I.

GENTLEMEN,—Of all the organic diseases of the uterus there are none so common, so unmistakable in their results, and, as a general rule, so easy of detection and treatment, as those which are the subject of these lectures. It will not be possible for me to enter very minutely upon the many questions which are of interest in connexion with these tumours. I shall therefore limit my attention to those points only which are of greatest practical importance, my object being chiefly to make these lectures as practically useful as I can. I intend also to give you, as far as possible, the results of my own personal experience, especially in the matter of diagnosis and treatment, for it is to these two points more particularly that I propose to ask your attention in this and the following lecture.

Before, however, proceeding to the consideration of the diagnosis of fibroid tumours of the uterus, there are some questions in connexion with the general history and pathology of these diseases which it may be well briefly to allude to, not only because they may help to throw some light upon what is at present rather obscure and uncertain—viz., the origin and causes of these growths,—but also because they possess at least a certain interest in the practical department of therapeutics.

I have said that these tumours are the most common of all organic diseases of the uterus. Let me substantiate this by a brief reference to figures; and for this purpose it is only necessary to compare the frequency of uterine fibroids with malignant disease of the uterus. On this point I shall give you only my own experience during the last seven years. I find that in that time I have had under my care in hospital and private practice 180 cases of fibroid tumours of the uterus, besides 26 cases of uterine polypi; making a total of 206 cases. During the same period I have had only 139 cases of malignant disease of the uterus, including its several varieties of epithelioma, scirrhus, &c. I am unable to give you even an approximate idea of the relative frequency of these two diseases, as compared with other affections of the generative organs; nor can I speculate upon the frequency of fibroid tumours among women in general. It appears to be generally admitted by writers on this subject that they are much more common among women of coloured population than in those of our own race; indeed, it is said by some that the uteri of black women are seldom free from this disease. I have no experience to guide me on this point; for, of the whole number of cases which I have seen, only four have been in coloured women, and one of these is at present under my care in this hospital. The point is, I think, of considerable interest; because it may, if carefully investigated, throw some light upon the causation of the disease. In regard to its general frequency in European races, authorities differ very widely: Bayle affirmed that at least 20 per cent. of women dying past the age of thirty-five would be found so affected; and Klob estimates that "undoubtedly 40 per cent. of the uteri of females who die after the fiftieth year contain fibroid tumours." Both these statements are, perhaps, somewhat exaggerated; but they attest at any rate the importance of the question, and the necessity that exists for full and accurate knowledge on our part, if possible, of the *causes* of the disease, in order that we may do something to avert it; and at least as to its detection, so that the proper treatment may be adopted.

In regard to the *Causes* of uterine fibroids, we know no more, but certainly no less, of their origin than we do of the same or similar tumours in other parts of the body; indeed, I think we may say that, of the two, we are perhaps a little more informed in regard, at least, to some of the circumstances which seem to exercise an influence in the production of these tumours in the uterus, than we are in regard to the origin of tumours elsewhere. On this point I shall make a few remarks presently; but I wish, first of all, to point out to you, in the words of Sir James Paget, the essential and distinguishing feature of these uterine fibroids, and the dissimilarity between them and the hypertrophies which affect not the uterus only, but other important organs. "If we compare," he says, "any tumour with one of the hypertrophies which are least morbid—with one of those, for instance, in which the excessive growth is adapted to some emergency of disease, as an hypertrophy of the heart is adapted to some emergency of the circulation,—we shall, I believe, always see between them this chief difference: that, to whatever extent the adapted hypertrophy may proceed, the overgrown part maintains itself in the normal type of shape and structure; while a tumour is essentially a deviation from the normal type of the body in which it grows, and, in general, the longer it exists the wider is the deviation." Now there is no better illustration of this law than is afforded by the very diseases which we are now considering; and here, again, I would quote in evidence Sir James Paget, who says, speaking of these very tumours, "Such a tumour may resemble in its tissues the substance of the uterus itself, having well-formed muscular and fibrous tissues; and, so far as the structures formed in excess are concerned, we might regard the tumour as the result of an hypertrophy not essentially different from that which, at the same time and rate, may take place in the uterine walls around it. But an essential difference is in this: the uterus, in its growth around the tumour, maintains a normal type, though excited to its growth, if we may so speak, by an abnormal stimulus; it exactly imitates, in vascularity and muscular development, the pregnant uterus, and may even acquire the like power, and at length, by contractions like those of parturition, may expel the tumour, spontaneously separated. But the tumour imitates in its growth no natural shape or construction; the longer it continues, the greater is its deformity." This quotation very aptly represents, I think, the essential nature of these tumours: they are not mere hypertrophies, but distinct and separate growths; and this difference is well seen when we come to examine the mode of attachment of these tumours to the organ in which they are developed, for a careful examination shows them to be easily separable from the uterus. The facility with which they may be detached varies a good deal in different cases, as I shall show you in my next lecture, when I consider their surgical treatment. In some the detachment may be effected very easily; in others it is so difficult that the two seem almost incorporated. As a rule, I think it will be found that, in regard to the submucous and interstitial varieties, the facility of detachment is in direct proportion to the size of the tumour, a large tumour being much more easily detached than a small one. Some explanation of this, as regards the interstitial variety, may, I think, be found in the fact that the bloodvessels (chiefly veins) which supply these tumours ramify over the periphery of the tumour between it and the uterine tissue, and of course they are larger the larger the tumour is, so that the space between the tumour and the uterus is increased with the growth of the tumour, and hence its detachment is facilitated.

I have said that these tumours are not mere hypertrophies but distinct growths, and in proof of this I would direct your attention to some microscopic specimens on the table. In simple hypertrophy there is, as you know, only an exaggeration of the normal tissue of the part, there is no foreign or adventitious element or structure; and I have been surprised to find in the writings of some authorities that all these uterine fibroids are regarded as made up only of the proper tissues of the uterus, variously combined.

This, however, is not the case; in most if not in all of them, there are, besides the ordinary elements of the uterus—namely, muscular fibre-cells in varying proportion, all bound together with firm connective tissue—a considerable proportion of cellular elements; in some places little else is observable, and the whole appearance there is very much the reverse of what one would be led to expect in a fibrous tumour. I have noted also that the proportion of these cellular elements varies directly with the rate of growth in the tumour—that is to say, that the more rapidly a tumour has grown, the less fibrous and the more cellular will it be found to be. This point is well seen in some of the specimens on the table, and their clinical histories bear out this view.

In number and size these tumours vary very greatly; sometimes only one is found, but this, according to my experience, is rather the exception than the rule. In one case I have seen the uterus completely studded with them, both within and without, so that on making a section of the uterine wall the surface looked almost like the skin of a person suffering from small-pox; so numerous were the tumours that it was literally impossible to count them. They varied in size from that of a millet-seed, or even less, to that of a small walnut. I need not say how hopeless such a case would be from a therapeutical point of view, and how utterly impossible to diagnose it. A careful inspection of such a specimen as the one I show you here suggests the inquiry—How do these tumours originate? That in some way or other they are a consequence of mal-nutrition must, I think, be conceded. There seems no other way of accounting for them in the case to which I have referred just now, for where the disease is so general no other explanation meets the case. At each one of the innumerable points where the tumour exists in that specimen some departure from the ordinary cycle of nutritive changes must have been in operation. I think, too, we may go a step farther, and say that the change in question was one characterised rather by deficiency than excess of formative power; that, in fact, it is a degenerative process, and not a process of exaltation. The whole history of these growths supports this hypothesis, and the way in which they sometimes terminate, by decay and absorption, by calcareous degeneration, or by abscess, all these point to the same conclusion. Especially is this the case, I think, in the second of these processes, for the change in question consists "in an amorphous and disorderly deposit of the salts of lime and other bases, in combination with, or in the place of, the fibrous tissue." (Paget.)

It may be thought, at first sight, that the clinical history of uterine fibroids tends rather to contradict this statement, because there is no doubt that these tumours occur much more frequently at those periods of life when the uterine functions are in greatest activity. In this respect my experience coincides pretty closely with that of most other observers. For instance, of the 180 cases which have come under my care in the past seven years, 6 occurred between the ages of twenty and twenty-five inclusive, 14 from twenty-five to thirty, 42 from thirty to thirty-five, 33 from thirty-five to forty, 41 from forty to forty-five, 33 from forty-five to fifty, 9 from fifty to fifty-five, and 2 from fifty-five to sixty-five. Or to put them in decades, we find that 20 only occurred between the ages of twenty and thirty, 75 between thirty and forty, 74 between forty and fifty, and only 10 between fifty and sixty. Of course, the time at which these cases came under observation must not be taken as the date of occurrence of the growth; that must be put back at least for several years. But this only brings the fact of the origin of the tumour still more closely into relation with the period of greatest uterine activity. For instance, allowing for a period of five years as that within which the tumour was growing from its very commencement as a mere speck, no larger than a pin's head, to the time when it first came under observation, the greatest number of cases (149 out of 180) must by this reckoning have originated between the ages of twenty-five and forty-five—a period which is universally admitted to include the highest functional activity. How then, it may be asked, is this to be reconciled with the idea that these growths are the result of some form of mal-nutrition, and that the change in the formative power of the part affected is characterised rather by deficiency than excess?

A little reflection will, I think, satisfy us that the facts and the hypothesis are quite compatible; nay rather, that the latter *best* accords with the former. Let us look a little more closely into the facts. Of the total number of cases (180), 152 were married, 25 were single, and in 3 no note of the social condition in this respect is stated. Of the 152 who were married, 45 were sterile, 94 fertile. Of the latter, 46 aborted, the total abortions being 105. The number of children born was 454, and the total number of pregnancies was 559, giving an average of very nearly 6 pregnancies to each. Further, I find of the 152 who were married, the number of years of married life is stated in 128, and the total number of years amounts to 1937, giving an average of 15 years and a fraction to each. All these facts are, I think, sufficient to prove that the period of greatest functional activity in the organ concerned is that within which the occurrence of fibroid tumours is most likely to happen. But functional activity—in other words, active nutritional change—implies corresponding waste, disintegration, and decay; the two are commensurate one with the other, and it might, I suppose, be formulated as an axiom in pathology that, excluding blood poisons, such as those of gout, syphilis, the poisons of eruptive and other fevers, all of which have special affinities for particular tissues, parts which are subject to the greatest functional activity, and where the nutritive changes are consequently most actively carried on, are just those which are especially liable to disease. The greater the activity the greater is the waste, and the greater the waste the greater is the liability to disease. The uterus during procreative life is surely no exception to this rule; it is, in fact, the very basis of our practice, without which, I fear, our office as gynæcologists would be in danger of becoming a sinecure. There is no fear of that at present at any rate, as the experience of this hospital testifies. But, further, if you will look with your mental eye into the microscopical changes which we may suppose to be taking place in the minute spot where the germs, if I may so say, of a uterine fibroid tumour are being developed, you will see, I think, indications of the kind of action I have pointed out. Suppose that, instead of this deficiency in the formative power of the local nutritional changes, there were an excess, surely what we should have would be, rapid growth, great pain, and a tumour characterised rather by softness than hardness. Such, at least, is the universal result in cases where excessive formative power is certainly going on, as is seen, for instance, in the case of certain forms of cancerous growths.

You must not suppose that all this is merely fanciful speculation with no practical interest or bearing. On the contrary, it is related in a very special manner to the treatment of these cases, at least in its medical aspect; and certainly no treatment can be successful which is not based upon sound pathological data. One illustration will suffice in proof of this statement, for I need only point to the difference in treatment between a case of uterine fibroid and one of cancer to demonstrate my meaning. In one word, local stimulation is the process upon which we shall mainly rely in the medical management of a case of fibroid tumour, where a cure is aimed at without the intervention of surgery, while all thought of such a process is most carefully excluded in the conduct of a case of cancer. Why? Because in the one case there is already an excess of formative activity which we are most anxious to curtail, while in the other an opposite condition exists, and local stimulation, with the slender hope of securing a removal of the disease by a process of absorption, is the key-note of our therapeutical system.

So much, then, on the pathology of these tumours. There are many other points in connexion with this branch of our subject upon which I should have been glad to remark had time permitted; some of these I shall perhaps allude to in considering the question of treatment. Before proceeding to discuss the *Symptoms*, a few words are necessary in regard to the classification of these growths which has been adopted by writers on the subject. The point is important, too, with reference especially to surgical measures, and hence the diagnosis of the several varieties is a matter of prime consideration. I do not propose, nor, indeed, is it necessary for me, to dwell at any length upon this part of our subject; suffice it to say, that for all practical purposes fibroid tumours of the uterus may be arranged in three classes, according to their situation and relation to the uterine walls. Thus we have, first, the *submucous* group, in which

the tumour is originally developed immediately under the mucous surface. As these grow, they project more and more towards the uterine cavity, which they invade and distort to a greater or less extent, according to the size of the tumour. At first, and when extremely small, they resemble very much another variety—viz., the interstitial, and they differ from them only in being nearer to the uterine cavity. Sometimes it is thought that, by the active efforts of the muscular fibres behind or beneath them, they are gradually projected from the bed in which they were originally developed; and as this process goes on, the contraction of the fibres behind gradually extrudes the growth, narrows its point of attachment, so that ultimately it becomes polypoidal in form, having a more or less slender stalk, and being covered all over by the uterine mucous membrane. In regard to this submucous group, the chief variations—and they are of great importance from a surgical point of view—have reference to their size, to the amount of their projection into the uterine cavity, and to the extent of their attachment.

Another variety of uterine fibroid is that in which the original development occurs, not near the mucous, but the peritoneal surface—the *subperitoneal* group. These are commonly believed—though upon what grounds I do not know, and it certainly does not agree with my experience—to be of more frequent occurrence than the former group; they give rise to very distinct symptoms, which usually mark them off very clearly from those we have just considered. In their growth it is thought that very much the same kind of action goes on with reference to the muscular fibres behind or beneath them as occurs in the case of the submucous group—that is to say, that a process of extrusion takes place by muscular effort, formed in both cases by the deficient resistance which exists upon either surface; so that here again the point of attachment may become gradually narrowed, and the tumour at last assume more or less of a pedunculate character. In a few rare cases, indeed, this process has been carried to such an extent that the tumour has at length become detached altogether, and, still maintaining its independent existence, has for a time lived free in the peritoneal cavity, and ultimately, in some cases, has taken root again, and grown in another part. Such a medical curiosity has, however, never fallen within my experience.

The third group of cases comprises those which belong to neither of the two classes just considered, but which lie as it were in the intervening territory, having originated in the substance of the uterine wall, not appreciably nearer to the one surface or the other. To these the term "interstitial," or intramural, fibroid has been given. This comprises a very large group of cases, and, according to my experience, they on the average attain to a greater size than either of the other two; though, of course, there are exceptions to this. The greater freedom of blood-supply is probably a sufficient explanation of the fact. In the growth of these tumours they may incline a little more to one or other surface of the uterus, and in proportion as this occurs so will the uterine cavity be more or less influenced, distorted, or enlarged—a point which obviously is important in a diagnostic point of view, and which is happily within our cognisance.

In reference to all these several varieties, it may be said that they occur much more frequently in the fundus and body of the uterus than in the cervix; indeed, it is very rarely that we meet with them in this latter situation, unless they have invaded that part in their growth downwards from the body. On the whole, I believe that the fundus is most frequently the seat of these growths, though I am unable to give you numerical data. In regard to their relative frequency in the anterior and posterior walls, I find that of 82 in which its position could be accurately defined, the tumour was situate in or upon the anterior wall 44 times, and in the posterior wall 38 times. In 22 other cases, it was situate five times on the right side, five times on the left, once only in the cervix; and in 11 cases it was distinctly subperitoneal.

IN the report of the Health Department of New York for the year 1872 alcoholism is returned as the direct cause of death in 314 cases; delirium tremens in 102 cases; and, indirectly, intemperance is given as the cause of death in altogether no less than 826 cases.

ON CHOLERA IN INSULAR POSITIONS.

BY WILLIAM R. E. SMART, M.D., C.B.,
INSPECTOR-GENERAL, ROYAL NAVY.

(*Concluded from page 555.*)

ISLANDS afford us many unquestionable instances of importation, and some in which that has been disputed, as in Mauritius in 1819 and 1854, in Jamaica in 1850, the Cape Verds in 1856, and Guadaloupe in 1865; but on all these occasions these several islands were notoriously open to receive infection through systematic or temporary relaxation of quarantine regulations; and the well-observed distribution of the disease into other islands which held intercourse with the island first infected, as in the Cape Verds and Guadaloupe, indicates most forcibly the influence of human intercourse in the spread of epidemics. The inability to connect the outbreak with the arrival of any special vessel, as in the Mauritius and Cape Verds, on these occasions, may be accounted for on the ground of the long prevailing belief in the non-contagiousness of cholera, and the denial of specific characters to sporadic or single cases of cholera, as well as to the diarrhœal cases that linger in communities that have either undergone an epidemic, or have been exposed in infected localities previous to their arrival in the islands, where no consideration short of the existence of the disease in its epidemic type on board at the moment of arrival has been entertained as denoting the need of restrictive measures. On the subsequent outburst of an epidemic under these circumstances, the desire to escape official blame must have thrown a wrong light on facts, and, it may be feared, has raised barriers to a full investigation of the truth, leaving it to be inferred, rather than proved, from remote experiences and analogies.

Nothing has yet been found to discredit the hypothesis of a specific essential cause, without the assumption of which it is quite impossible to account for the special phenomena of epidemic cholera. The introduction of that cause from without seems to have preceded the appearance of the communicable form of the disease in all insular positions, although the absolute proof of the moment at which, may be difficult; and it is equally difficult to assign a precise limit, after it has once prevailed in epidemic form in the islands of hot climates, to the period the essential cause may remain in them, inadequate to renew its epidemicity without the advent of a fresh importation, during which period the acclimated may continue unaffected by it, though new-comers are liable to succumb to it.

In the great epidemic of the Antilles in 1854, that part of the chain from Barbuda in the north, through Antigua, Guadaloupe, Dominica to Martinique in the south,—all of them observing quarantine were generally exempt from the epidemic; but the southernmost of them, Martinique, through negligence, received infection on two occasions from St. Lucia, without giving rise to epidemic display excepting in one spot of importation, where it was shut off by a natural cordon of hilly country. The case is a very extraordinary one, open to doubt that the second outburst was only a sequence of the first undoubted importation, which fell sterile of results in the town four months before it.

Somewhat analogous to this was the case of St. Kitt's, separated by a six-mile strait from Nevis, where the disease prevailed till March, but did not appear in St. Kitt's before November, up to which time it was fancied that cholera had been prevented by quarantine; but Dr. Cooper, one of the medical inspectors of the islands, has stated that communication continued the whole time; and thus it may be attributed to climatic causes that the disease remained dormant eight months at St. Kitt's after being infected from Nevis.

While the northern islands of the chain above alluded to were observing quarantine, the important island of Barbadoes—of which it is officially stated, "It is notorious that quarantine is loosely performed here," and that "vessels arriving here from infected ports, or with disease on board, are not admitted to immediate pratique and without precaution, yet the sick may be landed, and located anywhere

favourable to recovery"—suffered intensely from this epidemic, which broke out suddenly in May in one of the worst districts of the negro town. The dependent islands, St. Vincent, St. Lucia, and Grenada, which during the first month of the epidemic in Barbadoes had no quarantine against it, were speedily involved.

In 1865 all the dependencies of Guadaloupe, having no quarantine protection, suffered severely; but other French islands, Martinique and St. Martin's, holding by quarantine, escaped. Our island Dominica received the disease from one of the Guadaloupe group, but limited it by a strict *cordon sanitaire*.

While the great epidemic of 1854 ran through the Antilles the quarantine regulations were of the most diverse character, owing to the various European Governments represented and to the different views of the insular authorities. There had been restrictive laws against yellow fever since about 1790, but they had fallen into general disuse as inadequate to prevent that great regional epidemic; and as cholera had not spread from Cuba in the first epidemic of 1833-37, the value of quarantine against it not being fully tested then, the practice continued in abeyance in many of the islands, or was so inadequate as to effect no safeguard against invasion.

After its appearance in Jamaica in 1850 a reaction commenced, without any regularity or concord. Among the English islands, quarantine of observation on healthy vessels from infected ports varied from immediate pratique at discretion of the harbour authorities to isolation of 21 days, and mail steamers were permitted, almost everywhere, to communicate at once, and to land their passengers without restraint; coasting vessels were exempt. Even as regarded infected vessels there was the same loose unequal practice. Thus, at Barbadoes, trusting to sanitary precautions, and at Jamaica also, the sick were allowed to be landed, and, in the absence of lazarets, to be placed in lodgings ashore; but in the Virgin Islands the practice was at the other extreme, keeping up the full quarantine of 40 days. Among our islands there were only two quarantine establishments—at Antigua in the north and Trinidad in the south, where there were islets set apart for its performance; but in almost every instance restrictions were not fixed until chances of infection had been incurred.

In the French islands the negative ordinances of the imperial decree of February, 1853, were relied on. In the Spanish islands, at the Havannah, from seven to twenty days were exacted from infected ships, and at St. Jago de Cuba from two to seven days from all ships from infected ports. At Puerto Rico, where there had been no quarantine during the first epidemic, there was in the second epidemic a detention from fifteen to twenty days of healthy vessels from infected ports, and infected vessels were not allowed to enter. In the Dutch island Curaçoa there was discretionary observation from one to ten days in healthy ships from infected ports, and full quarantine of forty days in the case of infected ships. At the Danish island St. Thomas—the key to mail service of the region—an interval of only five days from an infected port was required before intercourse.

The results of such a want of general system were as varied as the practices; but lax quarantine led to speedy infection, as in Jamaica and Barbadoes; while its severe form had instances of primary exemption concurrent with it, as in Puerto Rico and Curaçoa, or of entire exemption, as in the Virgin Islands and the Antigua group.

Wherever quarantine is to be duly exacted, a fitting lazaret for the landing and isolation of the passengers and crew is an essential appendage; and the advantage of its insular location at a distance from the populous centres seems to require no further illustrations. At Mauritius, on several occasions, infected immigrants from India have been detained on islets ten or twelve miles from Port Louis, without extension of the disease to it. At Corfu, in 1850, fatal cases from Cephalonia were treated on an islet in the bay without such extension. In Crete, in 1865, the infected pilgrims were placed on an islet in the wide bay of Suda, without prejudice to the main island. At Malta the lazaret is very badly situated on a peninsula, in a close harbour, with land near it on every side, and the cholera has extended from it on several occasions. On the other side of the Atlantic, New York, Boston, and Quebec have quarantine establishments with proper hospitals in insular positions, but, as far as concerns cholera, their use seems to be limited to emigrant vessels, and to such of them only as have cholera among the passengers at the time of arrival, the exclusion of diarrhœal cases being ill-provided against. On Staten Island, New York, the cholera hospitals have dwellings near them, and their inhabitants have suffered earlier and more than any other locality. On Grosse Isle, thirty miles from Quebec, the quarantine is almost exclusively for emigrants, by which the health of Quebec has been greatly protected; nevertheless the cholera has been introduced into that city by vessels that have passed it or have gone from it up the St. Lawrence. The negative as well as the positive evidence concerning isolated lazarets goes far to prove their efficacy when rightly administered.

Reference to the general history of quarantine may not be out of place here.

Quarantine as a restrictive measure against the introduction of presumedly contagious diseases from without, by ships, is observed generally with regard to plague, yellow fever, small-pox and cholera. In England it was established by Act of Parliament against the plague in 1710, and has been enforced against yellow fever from early in the present century, and against cholera since 1832, but always with a too lenient hand, guided by exclusive views of non-contagion. Being found oppressive to our commerce, relaxation of existing laws commenced in 1825, under our first free-trade minister, Mr. Huskisson; and, although acted on with reference to cholera in 1831, when the disease, notwithstanding, made its appearance in our ports, its efficacy became gradually discredited, until England stood forth as the chief opponent of quarantine in its integrity, trusting her own safety mainly to hygienic precautions and sanitary measures, using quarantine only under special circumstances against infected ports. In 1836 an official opinion was recorded that quarantine regulations had everywhere proved ineffectual to arrest the progress of cholera. The experience of Russia, Austria, France, the Peninsula, and Northern Italy, was to the same effect; but no general legal measures were adopted to abolish quarantine altogether. In 1848, when cholera was again advancing westwards, mild restrictive measures were observed in England, and the disease entered again at our ports. At that juncture the Board of Health pronounced its opinion that cholera is *non-contagious*. The opinion on this matter not being unanimous, a conference was held in Paris in 1851, which pronounced an opinion that sporadic and occasional cases of the disease are incapable of reproducing the epidemic type, and that personal clothing and bedding soiled with choleraic excreta are the only potential fomites. It recommended the abolition of quarantine of suspicion or compromise, while it confirmed that on arrival from infected ports, dividing it into quarantine of observation and quarantine of rigor, which, however, excluded the practice of unloading cargo in a lazaret. In May, 1853, the Emperor of France issued a decree, based on the report of the conference, fixing a detention of five days for the Mediterranean French ports, and of three to five days for those of the Atlantic, including the voyage even when cases had occurred during it. This was virtually the abolition of quarantine as a preventive measure. This was the reflex of the views of the English Board of Health; and in advocating the abolition of all quarantine measures, and reliance on hygienic measures, *à l'Anglaise*, M. Melier, the secretary of the conference, stated thus: "We maintain that quarantines, instead of being, as is supposed, useful and efficacious against cholera, tend to increase the chances of getting it, and favour its invasion, by retaining passengers on board ships or in lazarets and accumulating them there, when the contrary should be done, by using every possible means for their dispersion." The too liberal decree based on such views produced its natural results in Algeria, where, between 1854 and 1866, there were six visitations of cholera, all of them attributed by competent observation to direct importation, those actually suffering being in some cases landed in the town. The rebound of French opinion in favour of the opposite doctrine of contagion became as fervent as that which had preceded it; but when the cholera epidemic of 1865 appeared in Egypt there had been no change in European laws, and with surprising rapidity the disease invaded many parts of southern Europe, Sicily alone, where strict quarantine was then observed, escaping its first impulse. England then for the first time admitted the

disease, by a direct southern route, into a port on its southern coast. In consequence of these events a second conference was held at Constantinople in 1866. It pronounced its opinion, that not only cases of spasmodic cholera, but those of choleraic diarrhœa, are efficient to reproduce the disease in its epidemic type; that not only soiled clothing and bedding, but the surface of vestments, the walls of houses and ships, are capable of bearing the infection; that perfect quarantine is entirely efficacious in its prevention, although impracticable with extensive frontiers to be guarded; and that, under favouring circumstances, *cordons sanitaires* around infected localities are advantageous. The English representatives did not give an unqualified adhesion to these views, based on the theory of contagion, and with us, at least, the principles of action remain unaltered. The proposals offered by the conference were, that the Red Sea route should be specially guarded, and that lazarets should be established between Djeddah and the mouth of the Red Sea on the one hand, and between it and Suez on the other. Quarantine of observation to be applied to healthy ships from suspected localities; its length to be regulated by the local sanitary authorities. Strict quarantine, with disinfective measures, to be used in lazarets, after disembarkation of persons and cargo, in all ships from infected localities with a foul bill of health, and to all that have had cases of cholera on board. The ordinary term to be ten days; but ships having a surgeon on board, having been free from cholera or choleraic diarrhœa during the voyage, and having submitted to precautionary and disinfecting measures at the port of departure, during the voyage, and after arrival at the lazaret, to be allowed to count the days of the voyage as a part of the quarantine—a surveillance of twenty-four hours at the lazaret being, however, the minimum of quarantine for such cases; and in cases where cholera or choleraic diarrhœa had appeared during the quarantine, it should be counted *de novo*, for ten days, from the separation of the sick from the healthy passengers and crew. Infected, crowded vessels to be submitted to the very strictest of quarantine regulations, with power in the hands of the sanitary officers at the port of arrival to extend the quarantine according to their judgment.

From the scattered facts that have been brought together in this survey of cholera in insular positions, I feel no hesitation in believing that wise quarantine instructions are the only reliable means of excluding cholera from them, and that they ought to be employed in every instance; and I can only regard the recommendations of the conference of 1866 as in the main judicious, well founded and moderate, and well adapted to the end in view. They can always be exacted in islands of moderate size; while in great islands, as Sicily, Cuba, and Jamaica, the same difficulties may exist as on continental coasts; but even in these the epidemic commencing in 1865 was completely sea-borne, and there is every reason to believe that by quarantine it might have been restricted to Egypt, when by disregarding quarantine it became generally diffused and extended with unequalled rapidity as far as Guadaloupe.

Insular positions have the specialty of being the only absolutely defined localties, with intervening distances bridged across by ships possessing locomotion, which may transmit within themselves foci of disease. In this manner, on leaving an infected locality, they may have in the persons of their crew the essential cause of cholera, with sufficient vitality to last during a voyage of fifty-five days, as in the case of H.M.S. *Apollo* in 1849; bursting out before or immediately after departure, and running a short course, as is most frequently the case, or not until a fortnight had been passed at sea, as in the case of the *Sultany* from Calcutta to the Mauritius in 1854; and thus transporting cholera 4800 miles in the former and 3100 in the latter. As algide cholera can be carried thus far across the bridge, it is evident that the milder or diarrhœal type of the disease, which is as a halo to the more severe, will last longer and be carried further by reason of its longevity, possessing throughout an almost equivalent morbific force when transplanted amidst a fresh population. Even after this personal contagion is at an end, there may still remain in the closed holds of ships potential agencies similar to those in infected houses, shut up during the height of the epidemic, and reopened after a lapse of four months, giving rise to fresh outbursts.

From the historical facts which I have collated in this paper, I am brought to the inevitable conclusion that a rigid quarantine on insular positions towards ships or boats arriving from infected localities is efficient, so long as it is faithfully observed, to prevent the introduction of cholera into those islands, and that therefore its exaction is absolutely demanded for the limitation of an epidemic, as every fresh focus becomes the forerunner of further extension, as well as on the narrower policy of self-preservation.

The development of cholera epidemics under certain meteorological conditions, subsequent to the introduction of the essential cause, of atmospheric dryness and increased barometric pressure, together with a minimum electric disturbance, as first elicited by Mr. Glaisher in 1854 from observations during the London epidemics of 1832, 1849, and 1854, appears to have been substantiated by Dr. Barton from the epidemics of New Orleans, and by Dr. John Macpherson from those of Calcutta, by Dr. Bryden for the wider scope of the delta of the Ganges, and by Drs. Didiot and Armand for that of Lower Cochin-China. This would now appear to be a fundamental law for consideration in the study of the epidemiology of cholera, and I believe that the facts I have collated from the distribution and growth of cholera epidemics in insular positions will assist in proving its universality. England stands pre-eminent among nations for her reliance on precautionary and continuous hygienic and sanitary measures, which are being gradually wrought into a system for the mitigation of cholera epidemics; and her officers of public health will find, in watching meteorological phenomena, they have a sound basis for action in fixing the periods when their efforts will avail the most under a national system that admits of no commercial restrictions, and thus they will be enabled to qualify some of the social agencies that co-operate with this physical principle in enlarging the extent of epidemics of Asiatic cholera.

SUGGESTIONS FOR A MORE SCIENTIFIC METHOD OF TREATING REDUCIBLE HERNIA.

BY CARSTEN HOLTHOUSE, F.R.C.S.E.,
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(*Continued from p. 623.*)

ALTHOUGH I have given the dimensions of proposed standard oval and ovoid convex pads, I have not pointed out the kinds of hernia for which these are respectively best adapted. Neither have I offered an opinion on several points on which difference prevails: such as whether flat or convex pads, fixed or movable ones, are to be preferred. I propose, therefore, to offer some remarks upon these points.

Looking at the question of flat as against convex pads, one must take into consideration the conditions which have to be fulfilled by the pad in, we will say, an oblique inguinal hernia. They are to make uniform or equal pressure over the canal and abdominal rings, of sufficient firmness to close them, and moreover to maintain this uniform pressure during the varied movements and postures of the body. We have further to determine the comparative degree of force required to press inwards a given extent of skin, aponeurosis, and muscle, by a flat pad and a convex one. Flat pads have been recommended to obviate certain supposed disadvantages attendant on the use of convex ones; these, it is alleged, though they may keep up a rupture, yet tend to enlarge the opening through which it protrudes, pressing the soft parts, "like a wedge, into the already dilated inguinal openings, opening and stretching the inter-columnar fascia and bands, and operating upon them from without exactly in the same manner as the bowel itself does from within." This is supposed to be aided by the upward and downward movement of the spring upon the haunch, during exercise, acting upon the conical pad as the centre of motion, and thus working it continually deeper into the superficial ring and hernial canal. In this way, although the rupture may be retained, it is "constantly increasing in size."

From a case in which I was consulted quite recently, I

have no doubt that the effects here described may be produced by a convex pad with a strong spring digging into a relaxed and patulous external ring; at the same time, I cannot but think that these results are exceptional, and due to the improper application of a form of pad which ought not to be used under such circumstances. I cannot admit therefore that, with the evidence we possess in favour of convex pads, they ought to be banished from practice and flat ones substituted. The hundreds of thousands of ruptured persons who are wearing trusses with convex pads, not only without having their ruptures thereby increased, but with the opposite effect, and the cures, both of inguinal and umbilical ruptures, which are taking place daily in the young, under the use of these pads, are a sufficient testimony in their favour. The increasing size of a rupture, then, cannot be always, or solely, due to the action of a convex pad; but must also depend on other causes, the chief of which are imperfect retention, impaired health, and failing powers. Under such circumstances hernia will get larger under flat pads as well as convex ones, of which I have lately had two notable examples in members of our profession.

Looking now at the question of flat as against convex pads from a purely mechanical point of view, I think the following facts will hardly be disputed: First, a less amount of spring force is required to press inwards a convex pad than a flat one of the same dimensions. Secondly, the hold on the surface of a convex pad is more steady than that of a flat pad. Thirdly, it adapts itself more readily to the varied form of the abdomen, in different postures and movements of the body, and hence it has a superior retentive power. A flat pad, attached to a fixed body spring, can really lie flat on the surface in one posture of the body only: if, e. g., it bears equally by its whole surface on the abdominal wall while the patient is standing, it will press only or chiefly by its upper border when he is sitting, and by its lower when he lies down; hence, want of steadiness and want of uniformity in its pressure, with consequent insecurity of retention. A convex pad is, in a measure and in proportion to its convexity, free from these objections; the pressure of a cylinder would be absolutely uniform in all postures, but the bearing on the canal, by a very convex or a cylindrical pad, would be too small, and in most cases injurious. Get rid, however, of the fixed pad, by some such contrivance as the ball and socket joint of Salmon, the spiral spring of Coles, or the lever spring of Wood, and the difficulty of unequal pressure, inseparable from a flat pad and a fixed spring, is surmounted, and there would remain only the objection which arises from the stronger spring pressure required to press inwards a flat pad as compared with a convex one.

On the question whether fixed or movable pads are to be preferred, I have only just now indicated what I consider to be one of the principal advantages of the latter—namely, that they keep up a more uniform pressure during the movements of the body, and thus supplement as it were the convexity which otherwise would alone secure this result. I am aware there is a preponderance of opinion in favour of the fixed pad, as being more steady; and no doubt the spring may be made so strong, and the connecting strap so tightly buckled, as to restrain almost any rupture; but at what a price, at what an amount of suffering to the unfortunate patient should he have fortitude enough to submit to it! In a truss with a movable pad this amount of brute force is rendered unnecessary, and one obtains the same security with less inconvenience and suffering.

To sum up, then. With a convex pad, which is at the same time movable on the spring, the greatest security is obtained with the least pressure, and consequently with a minimum amount of discomfort to the patient. To obtain equal security with a similar but fixed pad, a greater pressure is required; to obtain the same security with a flat and fixed pad a still greater. There is, therefore, an economy of force in the use of a convex pad, as compared with a flat one, and this force is reduced to a minimum when the pad is movable on the spring, with a proportionate increase of comfort to the patient.

Although I have endeavoured to show that the convex pad is not really responsible for all the untoward results which have been attributed to it, it is not to be inferred that I am condemning the flat pad; on the contrary, I am of opinion that both may be used with advantage, and shall now proceed to make a few cursory observations on the class of cases for which each is adapted.

Premising that the size of the pad must be regulated by the size and variety of the hernia, it should, as a general rule, exceed by a few lines the boundaries of the canal, or of the aperture through which the hernia escapes, so as to allow for any slight shifting that may take place during the movements of the wearer. Where general support is wanted rather than a concentrated pressure, a large flattish pad, considerably exceeding the boundaries of the inguinal canal, should be used; where a greater and more concentrated pressure is required, a small and convex pad must be employed. In an oblique inguinal hernia in the young and strong, for example, a small convex pad, 2 in. ovoid with the large end outwards, placed over the internal ring and the inguinal canal, is more efficient than a flat pad; for, as well observed by Malgaigne, in order to press together the walls of the inguinal canal, a strong pressure is required to overcome the resistance of the aponeurosis of the external oblique muscle. When, too, the muscle contracts, its aponeurosis is put on the stretch, and easily raises a flat pad, leaving the canal partly open; but if a very convex pad is used, the aponeurotic fibres, which are depressed by it, correspond with a comparatively small number of muscular fibres too feeble therefore to raise the pad, so that the canal remains closed. By the use of such pads, in the class of cases just indicated, Malgaigne affirms that he has obtained numerous radical cures. In the old and feeble, on the other hand, where the abdominal wall is flaccid or pendulous, or where the canal is much dilated and its walls lax, the concentrated pressure of a very convex pad would tend to stretch and weaken them still further, and a larger and flatter pad, which shall take its bearings more on the outskirts of the canal—such as Wood's large horseshoe, or the 3½" oval described in my last paper—is to be selected.

(To be continued.)

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

SIMPLE FRACTURE OF ARM AND COMPOUND FRACTURE OF FOREARM; LACERATION OF SOME MUSCLES AND OF THE ULNAR ARTERY; RECOVERY WITH A USEFUL LIMB.

(Under the care of Mr. RIVINGTON.)

THE case before us illustrates the importance of applying the principles of conservative surgery whenever a fair prospect of success presents itself. As we stated some weeks ago, it is often difficult to prognosticate in an individual case what amount of reparation is possible after even the severest injuries to the upper limb. But, in carrying out the principles of conservatism in surgery, the ulterior usefulness of the limb must always be kept in view. It is but poor satisfaction to find that, after weeks or months of anxiety, pain, and danger, only a deformed and perhaps worse than useless member is the result. In the subjoined case the objects of conservatism have been attained, and the patient is now able to perform with ease and comfort the regular duties of his previous occupation.

The patient, aged nineteen, was admitted Feb. 15th, 1872. It appears that he was on a ladder holding the band of a machine, when his right hand and arm were caught by the band and dragged round the shaft. The ladder was supported till the machine could be stopped, and it was then found that the limb was broken and lacerated. He was taken to Mr. Kennedy, of Stratford, who put up the arm very neatly and securely, and sent the patient to the hospital. On admission, it was found that there existed a simple fracture of the right humerus a little below the middle, and a compound fracture of the right radius and ulna nearly in the centre of the forearm. Over the seat of fracture in the forearm a transverse laceration extended

across the limb, and through the wound protruded a mass of torn muscles and the jagged end of the upper part of the radius. The radial artery beat naturally at the wrist, but the ulnar artery was torn across and twisted, so that it could be seen and felt in the wound beating to within an inch of the divided end. The ulna was broken below the fracture of the radius, and between the fractures in the arm and forearm the limb was bruised.

The severity of the accident and the probability of supervening inflammation, suppuration, and disorganisation of the muscles, led to the opinion that the forearm and hand should be severed from the rest of the limb, and with this view Mr. Rivington was called to the case. Regard, however, being paid to the great importance of saving the right hand, and to the circumstances that the patient was young and healthy, and that secondary amputation could be resorted to with probable success if the case should turn out otherwise than it was hoped it would do, it was decided that an attempt should be made to save the limb. The patient was placed under chloroform, and the bruised muscles were trimmed consecutively. Damaged portions of the palmaris longus, flexor carpi radialis, and flexor sublimis digitorum, were cut off, the last muscle being carefully separated from the median nerve, which clung to its under surface. The flexor profundus had been partly torn away from the ulna, and the muscles on the dorsal surface were much bruised. About half an inch of the lower end of the radius, which was denuded of periosteum and jagged, was removed. The ulnar artery was tied, and the edges of the lacerated skin approximated loosely with sutures, and lint dipped in carbolic oil was applied. The forearm was then adjusted on an interrupted splint, with another straight splint on the dorsal surface of the limb. The patient being put to bed, a broad strip of strapping was fixed to the lower end of the arm, and a weight of four pounds attached thereto with a cord, which passed over a pulley fixed to an upright support, the arm being kept at nearly right angles with the body.

There had been a great deal of bruising, and smart inflammation was expected. Some constitutional disturbance and surgical fever followed; the temperature rose to 103°, but the patient continued free from severe pain, and was able to take his food well. A fluctuating swelling becoming perceptible on the outer side of the upper part of the forearm, and a rigor having indicated the probability of pus having formed, an incision was made, and some fluid blood evacuated, mixed with a small quantity of creamy matter.

It would be tedious to relate in detail the history of the case. The patient was well attended to by Mr. Beech, the house-surgeon, and by the dressers, Messrs. Pocock and Stone. The wound in the forearm healed kindly; the humerus, radius, and ulna united well. For some time it seemed doubtful whether the patient would regain much power over the limb. The hand swelled, and the formation of abscesses was threatened. But the removal of a small fragment of dead bone from the radius altered the complexion of the case. A sinus which had remained at the seat of fracture closed entirely, all swelling subsided, thickening of the tissues disappeared, and galvanism applied to the muscles of the forearm imparted a stimulus to their nutrition. Very soon he began to use his hand for feeding, writing, and dressing, and fresh power was gained daily. A few months ago he was shown at a meeting of the Hunterian Society, and he stated that he could do almost anything with his hand; that he was using it every day in his occupation as a brass-worker, and that he found little perceptible difference between its present and its former usefulness and power. The united muscles could be seen acting across the cicatrix in the forearm.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

OPHTHALMITIS AND SYMPATHETIC OPHTHALMIA FROM A FOREIGN BODY LODGED IN THE VITREOUS SPACE; ENUCLEATION; RECOVERY OF THE SYMPATHETICALLY AFFECTED EYE.

(Under the care of Mr. SPENCER WATSON.)

CASES similar to the following frequently come under the care of the ophthalmic surgeon, and they are not altogether unknown to the general practitioner. With the specialist, however, there is not often much difficulty in carrying out the treatment, but with those engaged in general practice it not unfrequently happens that the prejudices of patients cannot be overcome, so that they will not submit to operation. However this may be, it cannot too strongly be laid down as a rule never to be departed from, that whenever an eyeball is threatened by sympathetic irritation from injury and destruction of the opposite globe, extirpation of the damaged organ is imperative.

Benjamin C——, aged thirty-four years, a plate-layer on the Great Northern Railway, came to the hospital on Oct. 17th, 1872, with acute ophthalmitis of the left eye. A month before admission he was struck in the eye by a chip of iron from an "iron chair" which he was hammering. He did not suspect at the time that the piece of iron had lodged itself in the eye, but blood proceeded from a wound in the upper eyelid, and severe pain in the eye set in immediately, and had continued almost unintermittingly ever since. Antiphlogistic treatment and anodynes were of no avail; general ophthalmitis and sympathetic irritation of the uninjured eye, with great intolerance of light, remained unaffected by any treatment. When first seen by Mr. Watson it was noticed that there was a scar on the left upper eyelid, placed horizontally along its middle third, and of about half an inch long, and also a puckered cicatrix in the sclerotic immediately below the wound in the eyelid, and about four lines from the margin of the cornea. The eyeball, shrunk to about four-fifths of its normal size, was congested, soft to the touch, and sightless. The cornea remained clear, the pupil being distinctly visible, half dilated and fixed by adhesions. Oblique focal illumination demonstrated perfect transparency of the lens, and exhibited a dull red-yellow substance lying in the vitreous space, and coming close up to the deep surface of the lens.

When touched the eye was exquisitely tender, and the patient shrank from the approach of the finger. There was great photophobia, and the sight of the right eye (the uninjured eye), the pupil of which was sluggish in its action, was evidently much impaired, though the amount of its impairment could not be ascertained on account of the photophobia.

The diagnosis was that a foreign body lay embedded in the vitreous space of the left eye; the prognosis, that unless the damaged eye was speedily removed the other eye would probably be affected by incurable sympathetic ophthalmitis; and the treatment recommended was immediate enucleation.

The patient at once consented to the operation, which was performed without delay, the patient being at the time under the influence of bichloride of methylene. The eyeball, when cut across through a vertical transverse plane of the sclerotic, was found to be completely disorganised, the middle of the vitreous being occupied by a yellowish mass of lymph and decolorised blood, in the centre of which lay a chip of iron a quarter of an inch long and one-eighth of an inch broad, and with extremely sharp edges at each end.

The pain ceased very soon after the removal of the eye, and the patient returned to Peterborough in a few days with an artificial eye fitted to the socket.

Three months afterwards (January 20th, 1873) he again presented himself at the hospital, and was perfectly free from any discomfort.

With the right eye he could read No. 1 of Jäger's test types, and could see, in all respects, as well as ever. He had had no return of pain or photophobia. The artificial eye gave him no discomfort, and had a fair amount of mobility.

Remarks.—The case illustrates the advantage of an early removal of an injured eye. Even if no foreign body had been present, it would have been desirable to remove an eye which had remained for a month persistently painful and inflamed, but when the presence of a foreign body was clearly indicated, there could be no doubt of the urgent necessity for immediate enucleation.

QUEEN'S HOSPITAL, BIRMINGHAM.

INTRAMURAL FIBROUS TUMOUR OF THE UTERUS; HYPODERMIC INJECTIONS OF ERGOT.

(Under the care of Mr. JOHN CLAY.)

FOR the notes of the following interesting case we are indebted to Mr. Charles Lakin, resident obstetric assistant.

Jane R——, aged twenty-eight, married eight years, admitted into the hospital on July 3rd, 1872. Has had three children, the last four years ago. The forceps were used for the delivery, and a severe post-partum hæmorrhage ensued. The infant being still-born, nursing was not required; nevertheless recovery from the confinement was tedious, and at one time thought somewhat doubtful. The menstrual periods since the last labour have occurred regularly, but always very profusely, the discharge being more or less mixed with congula. Six weeks ago an unusually long and severe attack of hæmorrhage occurred, from which she rallied with difficulty; and, as soon as she was able, sought admission into the hospital. She was then pale and emaciated, with great anxiety of countenance, and had all the external appearance of a person suffering from advanced malignant disease. There was, however, no pain; but the uterine discharge was profuse, of a dirty-white colour, and offensive.

On examination, the uterus was found enlarged, and could be felt distinctly above the pubes. The os was patulous, sufficiently to admit the finger, and a firm, hard substance could be felt in the posterior wall of the uterus. There was marked fulness in the recto-vaginal cul-de-sac, which had all the signs of a retroflexion of the uterus. The sound on being introduced scarcely passed two inches, and did not influence the recto-vaginal fulness.

Tents and Barnes's dilators were introduced into the os and cervix uteri to facilitate the diagnosis, but produced little dilatation of these structures. The os uteri was then incised, and some additional space being thus gained for exploration, it was found that the tumour involved the fundus of the uterus, and thus precluded all idea of enucleating it which had been entertained.

Iron was administered, and a generous diet prescribed, and when her condition was somewhat improved, Mr. Clay determined to give a fair trial of hypodermic injections of ergot. Mr. Stokes Dewson, the resident dispenser, prepared a concentrated solution of ergot, three minims of which was equal to four grains of ergot, and this quantity was injected hypodermically in the hypogastric region daily. The injections caused at first great pain and redness of the skin; but after a few days the injections were well tolerated. At the end of three weeks she had severe pain in the back, headache, and other symptoms evincing that she was fully under the influence of the ergot. The menstrual periods occurred, and the injections were suspended, but there was a marked diminution of the sanguineous discharge. Upwards of a hundred injections had been given, and up to December last she had menstruated three times since the treatment was commenced, and on the last occasion the flow assumed the ordinary proportions. The uterus cannot now be felt above the pubes; the fulness in the posterior part of the uterus has sensibly diminished in size, and the os is fairly constricted. The measurement of the uterus is about the same. The leucorrhœal discharge has ceased; her personal appearance has surprisingly improved, and she bears the treatment to which she has been subjected with cheerful resignation. The treatment is still continued.

SUNDERLAND INFIRMARY.

TWO CASES OF HYDROPHOBIA; DEATH.

HYDROPHOBIA is, unfortunately, one of the diseases of which we know very little. Its incubation period is very uncertain, varying from one to twenty-six months; and Thamhayn mentions two cases in which it was stated to be four years and a half. These cases, and, in fact, all in which the period of incubation is stated to be above twelve or fourteen months, are probably open to doubt. Nor is our knowledge of prophylactic or therapeutic agents more certain. Dr. Marochetti asserts that if the opaque or crystalline vesicles which form near the frænum of the tongue during the period of incubation be opened, the outbreak of symptoms will be entirely prevented. This observation is, however, open to a patent fallacy, and has not, as far as we know, been substantiated. In its symptoms hydrophobia somewhat resembles tetanus, but differs from it in the important particular that the spasms are paroxysmal and not persistent. There has lately been a tendency on the part of some observers to revert to the old ideas of the nature of this malady in so far as they allege that the difficulty of swallowing water is really a "water dread," and not due to painful spasms produced in trying to drink. It is probable that in these cases the so-called nervous hydrophobia has been confounded with the genuine disease. Much difference of opinion, moreover, exists as to the explanation of the bark, which seems to be nothing more than the noise produced by the effort to expel the tenacious mucus.

For the notes of the following cases we are indebted to the kindness of Mr. Thomas F. Hopgood, house-surgeon.

Patrick C——, aged ten, was admitted on April 15th, 1872, suffering from hydrophobia. The only history to be obtained is the following:—The aunt of the boy came to the hospital on April 14th to ask the visiting house-surgeon, Mr. Brady, to see the case, as the boy had fallen down about four feet on April 12th; that he had walked home after it, but did not care to eat or drink anything, and vomited a little water, but no blood. He was seen in the afternoon by the house-surgeons, and nothing could be discovered but a little tenderness over the spine, but not in any particular spot. The case was considered one of slight injury to the back, and he was ordered to be kept in bed. On April 15th the junior house-surgeon called, and was told that the patient would not drink anything, as it made him go into a fit, and that he had taken nothing to eat since the 12th, when he came home. Upon giving him some water, he was instantly thrown into intense spasms, the glottis being closed, the chest fixed, the limbs rigid, and the eyeballs fixed. He was ordered an aperient powder, but the friends were afraid to give it. In the evening he was seen by the house-surgeon, when he was found sitting by the side of the fire, and when asked to get into bed he did so, but appeared in a very weak state, though there were no signs of paralysis. Upon examining him again, he complained of pain in the abdomen, which he said he had felt from the first, but not so bad as now. The tenderness in the back remained about the same. His friends were asked to give him some water to drink, but as soon as the word was mentioned, he started up in bed, and ran about to avoid being made to drink it, and showed the greatest signs of fear; but after a short time he was persuaded to try. He was given half a teaspoonful of water, which he took in his own hand, and with a gulp endeavoured to swallow it, but he instantly jumped up in bed, and fell back in the same manner as before; now the abdominal muscles were also rigid.

He was ordered to be sent into the infirmary, and was admitted the same night under the care of Dr. Yeld. It was a windy night, and in bringing him to the infirmary the lad was seized with another attack, which lasted until he was admitted. He was immediately removed to bed, and a little water administered, which brought on another attack. An injection of milk and an egg was therefore given. In about ten minutes after this, spasm of the muscles began on the right side, at first only in the face and arm; it then extended to the left arm, and gradually passed to the lower extremities. The attacks were not continuous, but got closer and closer together, until at 12 o'clock, or about three hours after admission, he became delirious, and frothed at the mouth. He was given a subcutaneous injection of one-eighth of a grain of morphia; after which he became quiet for a short time, but then the spasm came on with increased violence, the whole body being rigid, the eyeballs fixed, the respirations being at times separated by intervals of a quarter of a minute, accompanied with a peculiar noise (which might be called a bark, but certainly not distinct, the cause evidently being the sudden passage of air through the narrowed glottis). There was a constant flow of saliva from the mouth, and twice he vomited some greenish-white viscid fluid. He remained in this state until 6 o'clock on Tuesday, April 16th, bathed in perspiration, when he died in one of the spasms.

Autopsy, nineteen hours after death.—Rigor mortis still well marked. The external parts of the body showed great discoloration, especially over the front and sides of the neck and abdomen, and also over the back. There were no signs of any injury. On removing the scalp, there was no evidence of violence, and there was no congestion of the vessels. On removing the skull-cap, there was great congestion of the veins of the dura mater, and the sinuses were filled with clots of blood. No adhesions of the dura mater were pre-

sent. The pia mater was greatly congested, and its surface covered with a thin layer of recently formed lymph. On removing the brain, there were no clots at the base of the skull and no fracture, but the vessels of the brain itself were greatly congested, and the ventricles contained more fluid than usual. On removal of the spine, the whole canal was found very much congested, as also was the spinal cord itself; and there was an increased quantity of fluid present, but no signs of any injury. Heart and lungs healthy. The lungs were congested, and the right side of the heart was filled with a clot of blood. Abdominal viscera healthy. There was a small scar at the angle of the mouth on the lower lip.

The patient was bitten by a young retriever dog, about five months ago as near as the friends could recollect, in the lip, but they thought that the dog had nothing to do with it, as several other people had been bitten by it.

J. C——, was admitted into the infirmary on April 25th, 1872, suffering from hydrophobia, under the care of Mr. E. H. Maling. The history of the case previous to admission is this:—He was bitten by the same dog as the above, and was a brother of the other patient. He was bitten in the hand, but no scar could be seen. On the 19th of April the father of the lad came across to say, at seven o'clock in the morning, that another of his children was taken in the same manner as the other, and that he had been up with him all night. The junior house-surgeon saw him in the morning and found him as follows:—Anxious countenance; no tenderness over spine or abdomen; able to swallow but with difficulty, and in a hurried manner, taking one mouthful and pushing it from him. As soon as the fluid touched his lips there was spasm of the muscles of the face and throat, and the arms were tossed about a little. He could eat a biscuit very well. He was ordered to be brought to the infirmary, but the friends objected, and no medicine was then ordered. In the evening he was seen by the house-surgeons, when the symptoms produced by swallowing fluids was the same as in the morning. The friends were told to send for medicine, but did not do so. On the 21st he was seen by the junior house-surgeon, and in the afternoon by Mr. Morgan, when the symptoms remained about the same, but the aunt said he had taken nothing to eat since April 18th, except two or three small biscuits and very little to drink. The boy was not seen again until the 23rd, as they had called in another medical man, but they now obtained an order for home visitation, and he was seen in the morning by the junior house-surgeon, who ordered some hydrate of chloral, but they did not send for it. In the afternoon he was seen by the senior house-surgeon, and they then obtained the medicine. Symptoms remained about the same.

On the 25th he was seen by the junior house-surgeon, who found they had given none of the medicine; but as he was worse he was sent into the infirmary. Upon admission he was washed, and each time the sponge came in contact with the skin he had a slight attack of spasmodic twitches. He wandered a great deal, and was constantly trying to get out of bed. He was at once given eight grains of hydrate of chloral, four grains to be repeated every four hours. As he wandered a great deal, he was given a second dose of eight grains, which eased him for a short time; but as the spasms continued every now and then, he was placed under chloroform for three-quarters of an hour, and then another eight grains of hydrate of chloral given. As the spasm came on again, he was given eight grains of chloral every two hours. Up to 11.30 P.M. he had taken fifty grains of hydrate of chloral, but without much benefit. He passed his fæces and urine in bed several times during the spasms; eyes half open. During the chloroform the pupils, which were before dilated, became contracted. Pulse normal, but weak; breathing rapid, with a pause and gasp every now and then. Whenever he was touched, or the draught blew on him, a spasm was produced. In the evening he was constantly perspiring. During the day he had been made to take a pint and a half of milk, but he was unable to swallow during the last three hours. From 11.30 the spasms became more violent, and the act of swallowing impossible. There was vomiting of a greenish-white frothy fluid, and slight frothing from the mouth. He continued in this state until six o'clock, several injections having been given, but not retained, and died quite exhausted from the constant spasms.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 25TH, 1873.

MR. PRESCOTT HEWETT, PRESIDENT, IN THE CHAIR.

Mr. KESTEVEN read notes of a

CASE OF CANCER OF THE BREAST TREATED BY CAUSTIC.

The case related was that of a lady, aged sixty-five, from whom a large primary scirrhus of the breast was removed by the employment of the chloride of zinc and incisions. A large eschar was removed, and the surface had healed within two months. The disease had reappeared in the cicatrix two years and a half subsequently, and was treated upon the same plan as before, with the same recovery in the parts. The patient, moreover, had reached the age of seventy-three, having remained in good general health, and perfectly free from any return of the cancer.

Mr. GEORGE LAWSON spoke favourably of the use of caustics in the removal of tumours of the orbit, and believed that the pain caused was of short duration, and might, if necessary, be mitigated by subcutaneous injection of morphia. He believed, however, that cases had occurred where the pleura had been injured by caustics in removing mammary growths.

Dr. GREENHOW had never seen cases of injury of this sort, and doubted if harm could occur in the way described.

After some brief remarks by Mr. Christopher Heath, Dr. Greenhow, and Dr. Farquharson,

Mr. BARWELL, in commenting on Fell's method of treatment, raised the question as to how far it is proper to go in using the paste, and asked Mr. Lawson if any rules were laid down as to when to leave off.

Mr. LAWSON replied that, as to the orbit, the bony cavity was the only limit.

Mr. HEATH thought the desirability or not of leaving such cases alone was worthy of consideration, and had, by experience, grave doubts as to the propriety of operating in a case of scirrhus the subject of which was fifty-one years old.

A desultory conversation ensued, in which Mr. Lawson, the President, and others expressed opinions to the effect that in a great many cases the existence of a considerable amount of disease was compatible with life, but not with any sort of comfort, and that operative proceedings were useful to relieve pain, if not to prolong life.

Dr. GREENHOW then read a case of

ACUTE MUSCULAR ATROPHY,

which had run a much more rapid course than any case he had seen or had been able to find recorded. The patient, Ann C——, was a single woman, aged twenty-six, and she continued her work as a domestic servant until about three weeks before her death. She had enjoyed good health until her last illness, which commenced in the latter part of January, 1873, with pain in the abdomen, weakness, deficiency of freedom in moving her arms and legs, and also a sense of heat and pricking in the pectoral muscles. On February 7th she was no longer able to go about, and took to her bed. When admitted into the Middlesex Hospital on February 20th, she had the appearance of a healthy well-nourished girl; but the pectoralis major muscles appeared thinner than usual, and the muscles of the arms and legs were soft and flabby, though not definitely wasted. She could still get out of bed, and could stretch out her hand when desired, though the movement of the shoulder was imperfect. She could move her forearms and hands quite freely on the bed. She complained of pains in the shoulders, arms, and abdomen, but there was no redness, swelling, nor tenderness in the parts complained of. The urine was of a very peculiar red colour, due to the presence of uroerythrine. On the day after her admission he (Dr. Greenhow) learned that she was sister to Mrs. P——, who had died under his care last year of progressive muscular atrophy, and whose case is recorded in the last volume of the Society's Transactions; and, having previously observed a great similarity in the mode of moving the arms and in the colour of the urine in the two patients, he ventured, after considering all the symptoms and the history of the illness, to

diagnose the case as one of acute muscular atrophy. It did, in fact, run an acute and most rapid course. The pulse remained about 140; the temperature 100° to 101°; there was frequent delirium, and constant sweating. The patient daily lost power in her limbs, and before her death, on February 25th, she lay helplessly on her back, and could not even move her hands on the bed. Her death took place from a comparatively slight attack of bronchitis, rendered fatal by the inability to expectorate consequent on loss of power in the respiratory muscles and the diaphragm. The microscopical examination of the muscles after death revealed extensive granular degeneration of the extensors of the forearms. The pectoral and intercostal muscles, the rectus abdominis, and the muscles of the calf of the leg presented, in a more or less advanced stage, precisely the same appearances as the extensor muscles. The diaphragm and the walls of the heart also exhibited granular degeneration identical with that found in the extensors of the forearms, only with a larger proportion of healthy fibres. Dr. Greenhow remarked with reference to the case that the muscular atrophy was undoubtedly the primary and also the fatal disease. The patient had always enjoyed good health, and the post-mortem examination discovered no trace of any other disease, with the exception of bronchitis, from which she suffered during the last three days of life, and which was not severe enough to have proved dangerous to any healthy person. The atrophy and consequent loss of power of the respiratory muscles and of the diaphragm was the efficient cause of death. The case differed from all the other cases of muscular atrophy he had found recorded, not only in the great rapidity of the course it ran, but in the acute symptoms it presented, and in the implication of the muscular tissue of the heart in the process of granular degeneration. Duchenne, in the last edition of his work "De l'Electrisation Localisée," said that he had never seen a case of muscular atrophy attended by the slightest fever; and Dr. Roberts, in his classic treatise on "Wasting Palsies," had expressly stated that repeated and minute researches had only proved the perfect immunity of the heart from the degenerative process.

Dr. EDWARD LIVEING mentioned the fact, in connexion with this case, that scarlatina existed in the house at the time, and he had no doubt whatever that the case was indirectly induced by the fever.

Mr. KESTEVEN said the pathology of this case was most valuable because the state of the cord agreed so exactly with the condition of the muscles which should and did obtain.

Dr. BUZZARD had met with two similar cases in his practice. Both were young women, and both addicted to drink.

Dr. REGINALD SOUTHEY asked if the posterior roots of the nerves were examined as they issued from the cord.

Dr. GREENHOW, in reply, said that considerable difficulty existed as to localising exactly the disease in the cord. He doubted whether disease of the nerve-centres occurs in cases such as that above described.

Reviews and Notices of Books.

Lessons in Elementary Anatomy. By ST. GEORGE MIVART, F.R.S., F.L.S., Lecturer on Comparative Anatomy at St. Mary's Hospital, author of "The Genesis of Species." pp. 535. London: Macmillan and Co. 1873.

VERY fit companion to Professor Huxley's well-known "Lessons in Elementary Physiology" is the little manual of Mr. Mivart which lies before us—little, however, only in size, for it may be questioned whether any other work on anatomy contains in like compass so proportionately great a mass of information. As in the work with which we have just classed it, Mr. Mivart's manual has its matter collected into a number of terse aphoristic sentences which are comprised in a dozen chapters or "lessons." Though Mr. Mivart takes care to state particularly that his work does not profess to be a comparative anatomy, but only a handbook of human morphology, illustrated by the variations presented by lower animals in that type of structure to which man's body belongs, it will, nevertheless, prove a most valuable and portable vade-mecum to the zoologist and comparative anatomist, whether teacher or student. A very large proportion of the bulk of the work is taken up with the skeleton; for which the author gives in his preface very good reasons, not the least cogent of which is that the osseous system is, in most cases, all that remains to us as evidence of the structure of animals, whose history, but for this fragmentary testimony, would be indeed but a *tabula rasa*. Next to the skeleton a large space is given up to the muscles—a subject to which, as will be evident to any one who has occasion to consult the Proceedings of the Zoological Society, Mr. Mivart, in conjunction with Dr. Murie, has particularly devoted his attention. Lesson VIII. is, in fact, quite a compact little treatise on comparative myology. With regard to the omo-hyoid, Mr. Mivart notes only its absence in the dog. In all the Edentata whose myology has hitherto been investigated this muscle is likewise absent. We remember that the late Mr. Skey used to enunciate a theory in his lectures that the omo-hyoid is absent in all animals which lap. Whether this be indeed the case, which is, to say the least, doubtful, how interesting would be the investigation, were it yet possible, as to whether "the three hundred" who slew the Midianite owed the possession of the canine accomplishment which secured the choice of their services by Gideon to the absence of this seemingly insignificant structure.

Out of a work in which all is so excellent it is difficult to pick out any one portion as especially worthy of commendation; but if it be necessary to come to some decision, we would point to the sixth lesson, the subject of which is "The Internal Skeleton generally considered," as having particular interest, in that it is a most lucid exposition of a difficult and complex subject, but one to which Mr. Mivart not only turned his attention some years ago in a paper on the Anatomy of the Echidna, but has since returned to in a more recent paper "On the Vertebrate Skeleton," which, with the one just mentioned, will be found in the Transactions of the Linnæan Society.

Mr. Mivart's manual is not only furnished with a very complete index, but bears evidence, moreover—seeing that there is an almost complete absence of typographical errors, a by no means insignificant merit in a work of such description—of most careful revision. The woodcuts are abundant, there being more than 400 in all, and are, especially the diagrammatic ones, both clear and appropriate; but we question the value of the almost microscopic figures of really large animals, which have suffered so much reduction in size that the snout of the great ant-eater comes to remind us almost of the rostrum of a slightly magnified weevil.

Exercise and Training; their effects upon Health. By R. J. LEE, M.A., M.D. Cantab. London: Smith, Elder, and Co. 1873.

THE author has been induced to collect and publish his papers on Exercise and Training, because public attention and the attention of the medical profession has been strongly directed to the subject, not only by the recent athletic contests at the universities, but by the discussion provoked by the reading before the Clinical Society of Dr. Clifford Allbutt's paper on the effects of overstrain. Dr. Lee's medical qualifications and his long sojourn at Cambridge have given him unusual opportunities for arriving at just conclusions on the subject of his paper. Dr. Lee distinguishes two kinds of fatigue: local fatigue and general fatigue—muscular fatigue and loss of wind. He adopts the nomenclature of Mr. Wardrop, and calls the

first *musculo cardiac* and the latter *pulmo-cardiac*. Dr. Lee's theory of loss of wind is as follows:—He holds that the effect of muscular contraction is to render the muscle anæmic, and that, both veins and arteries being squeezed by the contracting fibres, the blood which should enter the muscle has to go elsewhere.

"The fatigue which arises from disturbance in respiration depends on a change in the quantity of blood in the lungs, heart, and large bloodvessels. This takes place when many muscles are engaged in the exercise, and consequently a large quantity of arterial blood is prevented from passing into the muscular tissue, while another similar quantity of venous blood is expelled from it into the large veins connected more or less directly with the heart. In this way muscular contraction is related to the organs of circulation. Now, beyond a certain point the heart and bloodvessels are unable to support distension, and as the lungs are the organs which are most closely connected with the heart, it follows that such a disturbance as we have described soon affects their vessels likewise, and produces an arrest in the flow of blood through the tissue of the lungs. From these causes arises that distress commonly known as loss of wind."

We dare say that this theory is right enough, as far as it goes, but why does Dr. Lee limit himself so entirely to the mechanical side of the question, and neglect what to us seems of infinitely more importance, *the chemical?* We do not find a word in Dr. Lee's book touching increased tissue-change, and the consequent increased demand for oxygen in the lungs. If Dr. Lee's theory were correct, it seems to us that the bigger a man's muscles became and the more thoroughly they contracted, the greater would be the pulmo-cardiac distress induced, whereas it is a matter of observation that the improvement of his muscular system keeps pace with the increase of vital energy, and that shortness of wind disappears (in a healthy subject) as training is prolonged. The effect of exercise is to increase the force and rapidity of the heart's action, and one has only to place a finger on the radial pulse to discover that the damming back of arterial blood in the left ventricle is not so great as Dr. Lee would have us believe. We are entirely of Dr. Lee's opinion, that training of the body is quite as important as training of the mind. The element which is prone to do harm in both is "*competition*," and just as many a valuable intellect has been spoiled by being overtaxed and over-crammed, so, we believe, has the health of many a young man been injured by entering into athletic competitions for which his physical powers did not fit him.

There is one side to athletics which is an unmitigated evil. Public attention has of late been too much attracted by them, and we have no hesitation in saying that the moral effect on a *student* of being made the general topic of conversation, of having his physiognomy made the subject of commercial speculation, and of being dragged from the quiet seclusion of his university to be cheered and betted on by all Belgravia and Whitechapel, and feasted by the City, not because he has excelled in learning, but because probably he has neglected it, must be bad; and this is the aspect of "exercise and training" to which the university authorities will do well to attend. Dr. Lee's little book contains some valuable hygienic rules to be observed while training.

Outlines of Physiological Chemistry, including the Qualitative and Quantitative Analysis of the Tissues, Fluids, and Excretory Products. By CHARLES HENRY RALFE, M.A., M.B., late Scholar of Gonville and Caius College, Member of the Royal College of Physicians. pp. 236. London: H. K. Lewis. 1873.

THIS little book will supply a want which is acutely felt by teachers of practical physiology. It is a short and simple laboratory guide, containing no more theory than is necessary for the comprehension of the facts, and no more facts than are really wanted by students and practitioners of medicine.

The introduction is mainly occupied with an account of the system of classification and notation which the author has adopted. The notation differs little from the well-known type formulæ of Gerhardt. Probably most readers of the book will be thankful that they are not compelled to master the complex constitutional formulæ which are the latest fashion among chemists. Short tables of radicals, alcohols, and acids are included in this part of the volume.

The bulk of the book is divided into four parts, which are devoted respectively to Proximate Principles, Products of Decomposition, Inorganic Constituents, and Tissues and Fluids. Under each compound a short account is given of its occurrence and changes in the animal body, the mode of preparing it, its properties, and in many cases the appropriate methods of testing for and estimating it. Now and then we find that a better method of preparation than the one described might have been selected, but for the most part sound judgment has been shown, and in nearly every case the directions given are clear and simple. Part IV. is perhaps the best part of the book. The sections on blood, bile, and urine, in particular, may be quoted as lucid and practical.

Altogether we think Dr. Ralfe's little compilation is likely to be very useful, not only to students, but also to practitioners, many of whom will be glad to have so simple and intelligible a guide to physiological analysis. Very few processes are described in the book which could not easily be carried out by a medical man.

PULMONARY DISEASES IN THE STAFFORDSHIRE POTTERIES.

IN the appendix to his report on the sanitary condition of the Staffordshire Potteries, to which attention has already been directed in THE LANCET, Dr. Ballard discusses the Pottery industry in its relation to the death-rate from pulmonary affections—namely, from phthisis and other diseases of the lungs. Dr. Greenhow had shown, in 1862, that the death-rate from these affections in the Potteries was connected with the unwholesome character of the manufacture and the mode in which it was carried on. Dr. Ballard, in the present report, has instituted a comparison between the pulmonary death-rate in the Potteries during the decennia 1851–60 and 1861–70, and also between the same death-rates in the Potteries during 1861–70 and similar death-rates in England and Wales during 1851–60. The general result of his observations and comparisons is as follows:—

"1. That, during the years 1861–70, the pulmonary death-rate among persons (males and females together) between the ages of 15 and 25 in the pottery districts, has been less than the standard rate from pulmonary disease of England generally. [The standard rate is based on the deaths of a different ten years, but it may safely be assumed to have undergone no important change.]

"2. That during the same ten years, the pulmonary death-rate among persons above the age of 25 in the pottery districts has been higher than the standard in England generally; and that this excess, comparatively small in persons aged 25 to 45, is very considerable in persons (especially in males) between the ages of 45 and 55, and still more considerable (in males reaching to the double of the standard rate) in persons between 55 and 65.

"3. That this excessive mortality from pulmonary diseases in persons over 25 years of age in the pottery districts as compared with England at large is, generally speaking, on the increase. Between the ten years ending 1860 and the ten years ending 1870 it has increased in males aged 25 to 45, in males aged 45 to 55, in males aged

55 to 65; and also in females aged 55 to 65; but it has decreased in females below 55 years old."

These facts, Dr. Ballard observes, are in accordance with the known influence of the pottery trade in causing lung disease. "The diseases of the lungs set up by dusty occupations, among which the pottery manufacture stands prominent, are of slow progress, and exhibit themselves upon death-registers only after they have rendered existence miserable during a number of years." Dr. Ballard further remarks, as to the increase of the pulmonary death-rate of recent years, as compared with earlier times, among males of all ages after 25, that an explanation will probably be found "in the circumstance of the male population of the district being employed in larger proportion now than formerly in the pottery trade; while the decrease of such death-rate in females under 55 appears to be connected with the smaller proportion now than formerly of females employed. The reason," he adds, "why females above 55 years of age are dying of lung disease in recent years more than before is probably that, in this class, many people are included who had been brought in increasing numbers into the trade before the recent movement against the employment of women, and that the women of this class are only now dying of the chronic pulmonary diseases from which they have long suffered during the years of their pottery work."

Such improvements as have been made in the conditions under which the manufacture of earthenware, china, and pottery generally is carried on, have been almost entirely confined, it would seem, to new establishments. These have been erected with various modern provisions for diminishing the unwholesomeness of the manufacture; but the older establishments remain much as they were. The improvements referred to are the use of steam-power in place of hand labour in certain processes; the abandonment of the "presser's stoves" for a mechanical contrivance by which the newly-made articles are brought by the mere turning of a sort of screen or partition at once into a hot drying chamber; the construction of buildings in such a way that consecutive processes are carried on in adjoining parts of the premises, thus doing away in part with the necessity of carrying heavy weights long distances; the substitution of the "pugmill" for the laborious operation of "wedging" the clay; and, lastly, the substitution of pressure-frames for the slip-kiln in getting rid of superfluous moisture from the mixture of clays. Dr. Ballard states that if it were rendered compulsory to introduce these improvements into the older establishments the buildings would have to be partially pulled down and reconstructed.

With regard to the different conditions described by Dr. Greenhow as particularly affecting the health of the labouring population engaged in the pottery manufacture, Dr. Ballard reports as follows:—In respect to the inhalation of dust, probably some of the workpeople in the newer establishments are less exposed to this source of danger than they were formerly, but in the older establishments there is no change for the better in this respect. In respect to lead-poisoning, nothing has been devised to avoid the necessity of the dippers immersing their hands in the glaze. "Ground layers," who dust a preparation of lead upon some coloured wares, are still unprotected. In one establishment only did Dr. Ballard see an arrangement for drawing off the dust from the bench at which this work was carried on. In respect to the heat of the workshops, this is moderated in the instances in which the flat pressers' stoves are done away with, and there is less exposure to vicissitudes of temperature where pressure-frames have been substituted for slip-kilns. In respect to overcrowding and insufficient ventilation of workshops, where the printing paper design is carried on, and where printing, painting, gilding, and burnishing the wares are performed, something has been done to lessen the evils. "Generally, however," Dr. Ballard states, "the ventilation of the workshops, except in the newest buildings, is still bad. The workpeople object to fresh air; and even where special means of ventilation have been provided, they do their best to render them nugatory." Dr. Ballard sums up his thoughtful and instructive report in the following words:—"Although some improvements have been effected, and are in slow progress in the pottery establishments, they have not been long enough in operation or become so general as to produce any marked reduction in the mortality from lung diseases among potters. Some time yet must elapse before this can fairly be looked for. The workpeople engaged in the new establishments have all their lives previously worked under the unfavourable conditions of the older workshops. Even now, boys and girls, on commencing their trade, mostly enter at first these older establishments, only a comparatively small number of them being employed at the new works. The only advantages they possess now are those furnished by the wholesome provisions of the Factory Acts."

Foreign Gleanings.

PATHOGENIC INFLUENCE ON THE SKIN OF BROMIDE OF POTASSIUM EMPLOYED INTERNALLY.

IN the *Wiener Med. Wochenschrift* (No. 6, 1873), Dr. J. Neumann has investigated the above subject. The author recalls the observations of Voisin of Paris, and Mitchell of Philadelphia, according to whom the employment of bromide of potassium in weak doses brings on eruptions similar to acne, with itching and the consecutive formation of indurated tubercles; whilst the prolonged use of the substance gives rise to the production of red tumours, which often become sore, of carbuncles, anthrax, eczema, and nettle-rash. Dr. Neumann states that, for his own part, he has observed eruptions very much like molluscoid acne coming on in successive outbreaks, and, in another case, a carbuncular eruption consisting of infiltrated tumours, with considerable loss of substance in the centre. The author inclines to think that the bromine passes into the blood, and thence into the various glands of the skin, and he accounts thus for the production of the eruption. It is known that the presence of bromide of potassium has been observed in urine, saliva, and the secretions of the skin.

CRITICISMS ON PHONOMETRY.

In the *Berlin Klin. Woch.* (No. 7, 1873) Dr. Guttmann has published some valuable critical remarks on the new method of investigation which Dr. Baas had described by the name of phonometry in the *Deutsches Archiv f. Klin. Med.*, 1872, Bd. xi. This method consisted in placing a vibrating diapason on various parts of the chest and abdomen, and in determining, by means of the varying degrees of intensity of sound, the presence or absence of air in the underlying organs. The application of the diapason, says Dr. Guttmann, is immediate or mediate; when immediate, it cannot be employed usefully to the soft parts, on account of their slight degree of resistance; when mediate it is practised by means of the ordinary pleximeter, and, anyhow, it is quite inferior to percussion. When applied to situations which are entirely soundless, there always exists a certain degree of resonance, so that it is impossible to exactly define the boundaries of such organs as the liver, the heart, and spleen. The information it affords in pathological conditions of the thoracic and abdominal organs, is equally valueless; for instance, it is difficult to mark out pleuritic exudata, and impossible to diagnosticate pulmonary caverns. So that phonometry can furnish information only in the presence or absence of air in the organs, and its application demands thrice as much time as percussion.

ALTERATIONS OF THE NERVOUS SYSTEM OF THE GREAT SYMPATHETIC IN CASES OF CONSTITUTIONAL SYPHILIS.

Dr. Petrow (Virchow's *Archiv*, Band 57, Heft 1, 1873), on examining portions of the plexus of the great sympathetic which he had taken (ten to twenty-four hours after death) from the bodies of individuals affected with acquired constitutional syphilis, has stated two sorts of pathological changes:—1. Modifications of the protoplasma of nervous cells which become loaded with brilliant pigmentary corpuscles, increasing with the age of the disease, and often accompanied by colloid transformation of the cells; the cells of the endothelium surrounding the nervous cells frequently undergo the same gelatiniform transformation, and cannot then be distinguished from the nervous cells. These changes can exist without the interstitial connective

tissue being impaired. 2. Modifications of the interstitial connective tissue with hyperplasia of the fibres, constituting large irregular fasciculi, which push aside and compress the nervous cells and fibres. The cells are then atrophied, irregular, and dotted with pigment, whilst the fibres are flattened, and their myelin shows slight granulations.

TREATMENT OF CHRONIC DISEASES OF THE BLADDER WITH INJECTIONS OF HEALTHY URINE.

In No. 8 of the *Pester Med.-Chir. Presse* for this year, Dr. T. Clemens proposes for the treatment of old disorders of the bladder (such as catarrh, chronic inflammation produced by unhealthy urine, gravel, &c.) a means which had already suggested itself to his mind four years previously, and which he has since employed with success. His first case was that of a patient whose bladder contained abnormal urine in a state of putrefaction; after having failed in the use of all known remedies, he made injections with fresh and healthy urine, and with the very best results. The author advises to empty the bladder completely, and to wash it out by means of an injection of tepid water, which is allowed to run out after five minutes; a young and well-fed individual is then made to micturate directly and slowly into the syringe, which is previously warmed to 25° (Reaumur). The injected urine is allowed to stay some time in the bladder. The injections must be repeated two or three times in the day. Sometimes an immediate effect is observed, as happened in a case quoted by the author, in which spasm of the bladder disappeared after the first injection.

HYPERTROPHIC CERVICAL PACHYMENINGITIS OF SPONTANEOUS ORIGIN.

Dr. Joffroy recently read a remarkable paper with the above title to the Société de Biologie of Paris. The chief facts brought out by Dr. Joffroy's researches may be summed up thus:—1. The existence of chronic spinal pachymeningitis is undeniable, and the affection, though not very frequent, is worthy of a special description. 2. One of the most frequent varieties is that which is anatomically characterised by the seat of the thickening of the dura mater in the cervical region. 3. The symptomatology of the disease then assumes a particular form which constitutes a clinical type. 4. This clinical type is characterised by two forms: (*a*) that in which the upper limbs are alone affected (cervical paraplegia); (*b*) that in which the lower limbs are likewise paralysed (general paraplegia). 5. It is possible to diagnosticate cervical pachymeningitis. 6. Cure or amendment of the disease may take place either spontaneously or under the influence of an appropriate treatment.

DEATH OF A CHILD CAUSED BY INTRODUCTION OF CHYME INTO THE AIR-PASSAGES.

This very interesting case was communicated by Dr. Parrot at the last sitting of the Société de Biologie, and is the second of the kind that he has already observed. The child was aged one year, and, after being fed by the bottle, was put to bed at six o'clock and died at midnight, with all the signs of intense dyspnœa. At the post-mortem examination (ten hours after death) the two lower lobes of the lungs were found quite softened, greyish, having a smell of butter, and, in a word, having undergone the action of gastric juice. Altered milk was found in the trachea and bronchi. In this case, the milk contained in the stomach, and which doubtless had been taken in excess, was vomited, and, on account of the horizontal posture, had penetrated into the air-passages. Dr. Parrot drew the attention of his colleagues to the importance of the fact from a medico-legal point of view. He thinks that this occurrence must be rather frequent, as he has already witnessed two cases in his own sphere of observation.

CASE OF PULMONARY GANGRENE IN WHICH DEATH WAS CAUSED BY SEPTICÆMIA.

This case is recorded in the March number of the *Archives de Médecine* by Dr. Lancereaux. The chief features of the case were briefly as follows: Sclerous pneumonia with bronchial dilatation, and, at a later period, mortification of the lung; absorption of mortified substance after an attack of hæmoptysis; ulceration of the blood, and septicæmic phenomena resulting from the ulceration, and ending in death.

CASE OF TRACHEOTOMY PERFORMED BY MEANS OF GALVANO-CAUSTIC.

Such a case is recorded in *Berliner Klin. Woch.*, Nos. 41 and 53. The operation was performed by Dr. Voltolinj, and was entirely successful. The case was one of a tumour seated in the larynx of an adult thirty-six years of age.

RISE OF TEMPERATURE IN ACUTE PLEURISY, AFTER THORACENTESIS.

In No. 13 of *Mouvement Médical*, Dr. Bourneville has collected eleven cases in which the above phenomenon has been carefully observed.

TREATMENT OF DIABETES.

At the sitting of the Vienna Academy of Sciences, Oct. 11th, Dr. Kratschoner summed up his experience of the treatment of diabetes as follows: Carbonate of soda has no action on the secretion of urea or that of sugar; sulphate of soda increases the loss of albuminoid matter; morphia diminishes the loss of substance, and may reduce the quantity of sugar to zero.

New Invention.

ARNOLD AND SONS' POCKET CLINICAL THERMOMETER (PATENTED).

(*Suggested by* PROFESSOR BROWN.)

THE woodcut A shows the thermometer with case attached; C, the instrument without case; and B the thermometer when closed. The diagram is of the actual size of the instrument. To the end of the thermometer is secured part of the case, as shown in Fig. C, which mount is so formed that the instrument will not roll off a table or sloping surface, and is not liable to slip through the fingers and thereby get broken, which sometimes happens with those in present use, particularly during the operation of setting or bringing down the mercurial register. When greater length is required, it is achieved by simply plugging the mount into the case, as shown in Fig. A; and you then have an instrument double its original length, which can be used for the rectum, vagina, &c. To prevent the possibility of the mount slipping or becoming detached from its case (which then forms the handle), a bayonet-joint is attached, which is effectually secured, and at the same time precludes the possibility of its detachment. It will at once be seen that, by a very simple arrangement, a thermometer of 3½ in. long can instantly be increased to one of 7 in. in length, and at the same time, when closed, can be carried in the waistcoat pocket, and is less cumbersome than a common pencil-case. The two scales in common use—that of Fahrenheit and Centigrade—are engraved on each instrument; the operator is therefore enabled to read off either of them, or to convert one reading into the other at a glance. It may be fairly claimed for the instrument that it has the merit of perfect simplicity, extreme portability, and security against breakage.

These thermometers are manufactured solely by the patentees, Messrs. Arnold & Sons, West Smithfield, London.

THE LANCET.

LONDON: SATURDAY, MAY 10, 1873.

FOR two or three reasons we should have some inward satisfaction at Mr. HEADLAM'S Bill becoming law. For one thing, like everybody concerned in this matter, we are rather tired of it; it has become dreary and monotonous; and we should be thankful to be rid of it—to have it off our mind. Then, secondly, we confess that we should expect a great deal of quiet entertainment out of the working of Mr. HEADLAM'S Bill. The nineteen bodies compelled to dwell together in unity would be a study in natural history. The reports of their efforts at conjunction; of their successes and failures; the fighting of the battles over again in the General Medical Council; the appalment of the Privy Council at seeing terms of examination which might endanger the public supply of doctors; the rejection of schemes, and their reference back to the bodies; the preparation of other schemes, perhaps to be again rejected,—all this would be entertaining enough. Moreover, we confess that it is not at all clear to us that before any adequate legislation on this subject can take place some miserably inadequate measures will not have to be tried and to fail. It would be difficult to name a subject in which the public is more deeply interested, and in regard to which it yet feels more apathetic. The profession is really very little interested in the matter. Its members have entered the profession by many portals of various width; and whether, in future, entrants are to be admitted by one portal or two is a matter of very little moment to the twenty thousand gentlemen who make up the profession in Great Britain. With so much apathy on the part of the public, it is almost impossible to excite the Government or the Legislature to that degree of interest in the question which is necessary in order to deal with it satisfactorily, and to overcome the resistance of the Bodies to changes which are necessitated in the examining system. For all these reasons we should have some consolation if Mr. HEADLAM'S Bill were to pass. But, nevertheless, we can be no parties to its passing; and, bad and absurd as the present state of matters is—nineteen bodies giving nineteen half or one-sided diplomas,—we are of opinion that they had better remain as they are for a little longer than be patched up by a Bill which may give a semblance of settlement to a matter which it will completely unsettle and disturb.

Delay in legislation is not always such an evil as it seems to be, especially in the case of questions that are not understood by the public. We are not responsible for the delay, but only for the use we make of it. For ourselves, we have used it, as all sensible people use it, in educating public opinion on the subject, hoping that when the time for legislation again returns we may get a better Bill than could have been obtained in the first instance. Not only so: we have submitted ourselves to this educating process; we have been instructed from what has been passing before our eyes. Everybody, indeed, but the Reform Committee of the British Medical Association, seems to have been educated on this subject by the complete failure of the Medical Council and its component bodies; and in 1873 this Committee comes out gravely with a Bill, like that of 1870, assigning the formation of three efficient Boards to nineteen bodies, and, in the event of their failing, to their representatives in the General Medical Council.

But things are not now as they were in 1870. The nineteen bodies have since then amply demonstrated their unfitness to combine. In no one division of the kingdom is there a complete Conjoint Scheme. The schemes that have been put on paper are not only incomplete but impracticable, and would work inequitably so far as students are concerned, and very doubtfully so far as the public are concerned. Not only so; it is very questionable whether the very bodies whose interests alone have been considered in these conjoint schemes would be satisfied with them, or with the working of them. For example, will the London College of Surgeons be satisfied to combine with all the other English bodies, including the Universities (even that of Durham), and be subject to the conjoint authority? Is it likely to be satisfied with its share of the fees, or to find this enough for the maintenance of its own dignity and of the Hunterian Museum and Library besides? Has the College of Surgeons been conscious of no misgivings on these points since 1870, when it gave a creditably disinterested assent to the conjoint scheme of the Government Bill? Whatever the answer of the College to such questions, our belief is clear that it has little to gain and much to lose, as a College of Surgeons, by being fused with a motley group of universities and corporations. And as regards its Museum, that is too great an institution to be dependent on the fees of students at a pass examination; it is the boast of the nation, and the nation would not be likely to refuse an endowment to the College for its maintenance. We hold that such considerations as these must have occurred to the English corporations. In Scotland the bodies have not professed to form a complete scheme. All they ask for is to be let alone. There is a snug little miniature conjoint scheme between three of them, which gives a double diploma for £15, which is working very nicely, and which will make them very rich when the English bodies and the Irish shall drive all students to Scotland by a conjoint fee of £30. In Ireland, as we have indicated, not only are two important bodies left out of the scheme, but, as we have said, the impracticable fee of thirty guineas will securely drive students either to the unincluded bodies, or to the three Scotch corporations which, in their wisdom, have completed a scheme. Such is the state of matters in 1873. The bodies cannot agree to conjoint schemes; and any schemes they could agree to under the compulsion of legislation would be impracticable. If Mr. HEADLAM still insists on pushing his Bill before the House of Commons, he must be prepared to show how it is to be worked and how it is to maintain the existing bodies. He must tell us how he means to instil the spirit of agreement into nineteen rival bodies in a Council in which they are predominant, and would remain so even under his Bill. If the fee of thirty guineas is considered the right thing, he must tell us whether

the Scotch board will be required to raise its fee to this point; and, if its present fee of £15 is a more reasonable one for a mere licence to practise, he will tell us how the English corporations are to be satisfied with a *pro rata* share of this sum. The fact is, and it is becoming clearer every day, that to give to nineteen competitive and interested bodies the formation of three simple Boards is about the most absurd procedure that can be imagined. Boards so constituted would be costly, complicated, and exposed to constant demands for change and modification. It may appear very dreadful to the corporations to imagine that a Board entirely independent of them should license medical students to practise. The "ancient heavens" may be expected to fall after such a change. But we believe they would not. The corporations would remain and give their diplomas, which would be more honourable than ever. Only a small fee for examination by the licensing board would be charged. And the student would be left with a wish, and perhaps with money, to affiliate himself with a college or a university. Be this as it may, the corporations must learn that they exist for the profession and the public, and that the profession and the public do not exist for them.

For all these reasons, though the passing of Mr. HEADLAM'S Bill would be a temporary relief and almost pleasure to us, we cannot say a word in its favour. Dr. LUSH deserves the thanks of the profession for so promptly giving notice of opposition to it. No doubt he, like us all, would be thankful to be rid of the subject. But any temporary riddance would be dearly bought by passing Mr. HEADLAM'S Bill. On a review of the whole question, and especially considering the complicated and technical character of it, the best course, it seems to us, would be to refer the matter to a Select Committee. Certainly this day six months would be early enough to read a Bill enlarging the Medical Council to thirty, and leaving us still at the mercy of nineteen bodies.

WE have before us a copy of the Return of Statistics in the possession of the Metropolitan Police, showing the operation and effects of the Contagious Diseases Acts down to the 31st December, 1872. We commend this document to the attention of all those who possess sufficient candour to be influenced by a statement of facts. In a short time the opponents of the Acts will be renewing their efforts for their repeal. Were it not for the impressionableness of the present Government, there could be no doubt in the mind of anyone that such attempts should prove abortive; for, whether the operation of these Acts be regarded from a physical or a moral standpoint, the results appear to us to have been most beneficial. The root of the matter is this: If measures for the prevention of such diseases as small-pox are allowable, they are also for the prevention of syphilis; and the persons affected by the Acts are engaged in a calling which the State recognises no further than may be necessary for mitigating the evils attending it. We have heard from time to time a great deal about the abuses to which the power conferred upon the police by these Acts has given rise; and, considering the imperfection of all human institutions, an occasional case of injudicious or harsh treatment might have been expected. But what is the fact? The police have carried out their duties with so much judgment and skill that not one of the alleged cases of such abuse of power has been proved against them, although it is well known that their work in this respect has been executed under the jealous surveillance of the opponents of the Acts. It is an impressive fact, too, that the opposition does not come from those who have had any real practical knowledge of the subject. On the contrary, the clergy, nurses, and medical men, without exception, who have had an opportunity of acquainting themselves with the facts as they are to be observed at several hospitals and garrison towns and camps, have recorded their testimony strongly in favour of the good that has been effected. Much has been said about the infringement of personal liberty; but the argument is a fallacious one. As the Report of the late Commission says, the suspension of personal freedom in the case of a diseased prostitute, "being strictly measured by the time required to effect the patient's cure, and accompanied by no restraint unnecessary for such a purpose, is not to be regarded as an infringement of a great constitutional principle." To return, however, to Mr. W. C. HARRIS'S Report. It states that the women in the several places subject to the Acts attended with regularity throughout the year, and that in few instances only was it necessary to take proceedings before a magistrate. The Acts have exercised a repressive influence in several ways. Notwithstanding, we are told, the continued influx of common women from unprotected districts, the total number in the several districts on the 31st of December last had been reduced. The beneficial working of the Acts is, however, more clearly demonstrated by the reduction in the number of juvenile prostitutes, and this is very striking. The number of prostitutes in the different districts under the age of seventeen on the 31st of December last was 9; whereas in 1866, when the Acts were first put in force, there were 377 under that age. Again, on the 31st of December last, those under the age of eighteen were 67; whereas in 1866 there were 595! The number of brothels has been reduced by 86 during the past year, many of those suppressed being of the lowest description: 71 young creatures between the ages of twelve and seventeen, and 135 women between the ages of seventeen and thirty-one, who were known to have commenced immoral practices, gave up that course of life upon being spoken to by the police; and the Assistant-Commissioner's Report contains individual instances of many girls and married women who owe their rescue from a life of sin and misery to the well-directed and humane efforts of the officials engaged under these Acts. The Attorney-General has borne his strong testimony to their beneficial operation; and Mr. BRUCE, to do him justice, has shown much firmness in maintaining the position he has taken up in regard to these Acts, so we may hope that what Sir JOHN PAKINGTON characterised as the triumph of prejudice and clamour over reason and truth may undergo a reversal when the subject is discussed inside the House of Commons.

IF the appointment of Medical Officers of Health for large areas be regarded from the point of view of the duties set forth in the Orders of the Local Government Board, we are utterly unable to see how the essential part of those duties can be performed otherwise than perfunctorily.

Take, for example, the health-district recently formed in Northamptonshire by the combination of the urban sanitary districts of Daventry, Northampton, and Oundle, and the rural sanitary districts of Daventry, Hardingstone, Market Harborough, Newport Pagnell, Northampton, Oundle, Pottersbury, Thrapstone, Towcester, Uppingham, and Wellingborough. The district thus formed has an area of 576,000 acres—that is to say, of 900 square miles; and a population of 222,573—that is to say, not far short of a quarter of a million. Is it to be presumed that one individual can carry out in this district the functions of a medical officer of health in any sense in which the functions of that officer are commonly understood and practised? The presumption is little short of preposterous. Unless he can command the seven-leagued boots of the nursery tale, or contrive to be in several places at the same time, the detailed duties of a medical officer of health cannot possibly be performed by him.

If, however, this and like appointments be contemplated from the point of view of a superintending medical officer of health or of a medical inspector, they wear a very different aspect. It is true that such an appointment was not contemplated by, and is largely in opposition to the recommendations of, the Royal Sanitary Commission. It is true also that no provision for such an appointment was made in the Orders of the Local Government Board, and the duties set forth in the Orders are in several important respects inconsistent with it. Such an appointment will necessitate the further appointment of the Poor-law medical officers as assistant or deputy sanitary medical officers. The appointments, in fact, are most consistent with the notion of medical inspectorship; and they suggest that the Local Government Board has had in contemplation the formation of local medical inspectorships, in substitution for the scheme of *districting* (if we may so phrase it) central medical inspectors, which had been looked for, as the co-ordinating element in public medical sanitary work, by the profession. If this be the case, there is a boldness in the conception of relieving the imperial expenditure from, and throwing upon the local rates, the expenses of such detailed systematic district medical inspection which may be necessary, that commands admiration. How far such a policy will be acceptable to local authorities will remain to be seen. That it would have much in its favour if it had been pursued as part of a well-thought-out plan there can be little doubt. But to be carried out as it is now being carried out, if the assumption be accurate, is merely adding another item to the long series of confusions and discontents which the initiation of the Public Health Act of 1872 has given rise to, and to which there seems as yet no near prospect of an end.

THE astounding telegraphic intelligence announced in the daily journals very recently to the effect that between three and four hundred Government prisoners had arrived at Melbourne *en route* to New Caledonia, suffering from scurvy, has naturally drawn attention to the sanitary condition of our own mercantile marine in that and other respects. There is no doubt that, as far as scurvy is concerned, the results of legislation in 1867 are eminently satisfactory, for it appears that the disease has diminished by about 70 per cent. A great deal of this improvement must, as we believe, be attributable to the better quality and increased quantity of the lime-juice, and to the fact that it is now given and taken regularly at sea. Much also has been done to improve the quarters of the crews, and, in long-voyage ships, deckhouses, in lieu of top-gallant forecastles, are fast becoming the rule rather than the exception. Steam and the Suez canal have shortened passages considerably, but there are certain lines of ships, notably those that trade between England, Aden, and Callao, in which scurvy exists to a very considerable extent, chiefly, as it is believed, because good water and green food are both scarce commodities at Aden. But the time has arrived when the use of special anti-scorbutics should be discontinued, and a varied diet substituted. It is surprising that shipowners have not yet appreciated the financial and hygienic advantages of adopting such a course. If the scales of diet that now commonly obtain were altered in accordance with modern ideas and improvements, the health of seamen would be improved, the cost to the shipowner of victualling his crews would be diminished, and the latter would then be fairly entitled to go to the Government and ask for the abolition of the special anti-scorbutic clauses of the Merchant Shipping Act.

Medical Annotations.

"Ne quid nimis."

THE ARMY MEDICAL SERVICE.

ARMY medical officers will have noticed that Mr. Cardwell made a conciliatory reply to the question put by Major Arbuthnot, and that he did not strive to conceal the fact that much distrust and misunderstanding prevailed in regard to the new medical Warrant. He regretted that unavoidable delay had occurred in gazetting the late promotions consequent on the issue of the new Warrant, and also in making the medical appointments to the brigade depôts. As soon as the appointments to these brigade depôts should have been made, he expected that the misunderstanding which had undoubtedly prevailed would either be removed or greatly modified; and he promised that if any grievance still remained it should be fully examined, with a view either to explanation, or, if necessary, to alteration. This is fair enough, but we fail to appreciate the object or utility of Mr. Cardwell's official reticence. We are assured by some that he has good reasons to render for the changes he has inaugurated; if so, the medical profession desires to learn them from himself in the House of Commons. The abrogation of the regimental system was, we are told, considered imperative, in order to initiate the working of the new scheme of military reorganisation. It has been generally understood, too, that the Government was utterly opposed to an increased establishment of the late rank of surgeons on the old basis of organisation. The waste of power and skilled labour at standing camps and large garrisons had been urged as a sufficient objection to the continuance of a system which the new plan of depôt centres would have exaggerated and rendered more obvious; but the new medical Warrants imply the adoption of a principle which they nowhere really express, apparently from lack of courage on Mr. Cardwell's part to follow out a logical conclusion to its legitimate consequences. Eighty officers

have been already promoted, and it is rumoured that some seventy more names will be sent in next year, in addition to the promotions that will take place to fill up any vacancies that may occur in the meanwhile. Be all this as it may, the medical officers of our army have discovered a great many causes for discontent in the new Warrant, and if Mr. Cardwell has it in his power to explain away these causes, and dissipate the discontent, we earnestly hope that he will lose no time in doing so. The profession wants an authoritative and categorical answer to the various questions that have been raised. The distrust with which everything emanating from the Government is viewed by medical officers can only be regarded as the legitimate result of the policy which the authorities have adopted towards the medical service in the past. Efforts have been made again and again to tamper with the Royal Warrant of 1858, and the attempt has been renewed in the present warrant to introduce a forage clause prejudicial to the interests of the medical officers, and entirely foreign to the subject of the Warrant itself.

THE KILMALCOLM "MURDER" (?)

THE case which has been known as the Kilmalcolm murder, and which is almost unique in the records of medical jurisprudence, was tried at Glasgow on the 23rd ultimo before Lord Ardmillan. John Lang was arraigned for the murder of his wife, Margaret Lang, on the morning of the 2nd of January last. The Langs, who inhabited a farm-house at Killochwraes, had been married nearly forty years, and the evidence went to show that they were sincerely attached to each other. They were both, it would appear, addicted to habits of intemperance, the deceased woman especially so. On New-year's day there had been merry-making at the farm, and a good deal of drinking; and when the Langs retired to bed there is little doubt that they were both considerably the worse for liquor. About one o'clock on the morning of the 2nd of January John Lang called one of his daughters to come at once, as her mother had been taken ill. This daughter deposed that on going to her mother's room she found her lying on the floor, supported by her father. She saw blood on the floor where her mother was lying, and she also saw "something else" (a piece of intestine), which she put in a chamber-utensil, and which was afterwards given to the doctor. The medical evidence went to show that the deceased woman had a clean cut wound in the vagina (the exact anatomical seat of which is not given in the report), through which a portion of the intestines, with clean cut ends, protruded. Seven feet seven inches of intestine had been cut off in three pieces, and the evidence went to show that these pieces were all clean cut, and not ragged, at the extremities, and that the intestine had been carefully separated from the mesentery. The woman survived these frightful injuries a whole week, and did not succumb till January 9th, the cause of death being loss of blood and peritonitis.

The difficult question for the Court to determine was, the one of suicide, homicide, or accident. The medical evidence was in favour of homicide, because of the concealed position of the wound, and the deliberation which had been manifested in cutting off the intestine. It was admitted that the injury was *possibly* suicidal, though not *probably*. In favour of suicide, we have the fact that the woman's hands were covered with blood, but the man's were not. Against the theory of murder, too, was placed the man's previous excellent character, and his attachment to his wife. In favour of accident we have the fact that no weapon was discovered with which the injury could have been inflicted. Two pocket-knives, one of which had been recently sharpened, were found in the trousers of the accused, but no sign of blood was found upon either of them, and it was not considered probable that the wound had been produced by either of these weapons. The deceased woman also made a dying declaration on the 5th of January—which was obviously false—to the effect that the injury was caused by her falling on a chair; that no person injured her; and that she and her husband had always lived on friendly terms. The case is certainly a puzzling one, and the utter absence of direct or even circumstantial evidence is very remarkable. The jury returned a verdict of "Not proven," after ten minutes' deliberation.

The case is not the least remarkable on account of the long period which the woman survived, such injuries generally proving fatal in a short time from excessive hæmorrhage. Taylor mentions two cases of women who were murdered in Edinburgh some years since by wounds inflicted with razors on the vagina, and he further says that "this crime appears at one time to have been common in Scotland." This medical jurist holds very decided views as to the nature of such wounds. He says: "When deeply incised wounds are inflicted upon the genital organs of either sex, the fact of their existence in such a situation at once proves wilful and deliberate malice on the part of the assailant. Accident is wholly out of the question, and suicide is improbable except in the case of confirmed idiocy and lunacy." In a state of intoxication a woman may be practically an idiot or a lunatic, and we hold that it is very decidedly within the bounds of probability that the primary wound was self-inflicted. A comparatively trifling degree of traction will cause the bowel to separate from the mesentery (and separation in this way would account for the slight amount of hæmorrhage), and the bowel having been pulled out it is possible that an ignorant, half-intoxicated man may have cut this "something" off.

INSPECTOR-GENERAL REES, R.N.

WE are happy to be able to announce that the good-service pension of £100 per annum, vacated by the death of the late Inspector-General Sir William Rae, C.B., has been conferred upon Inspector-General John Rees, R.N., whose long and distinguished services have hitherto been strangely neglected. Inspector-General Rees has twenty-five years of actual service abroad and in sea-going ships, most of it of an extremely arduous character. He has served in an Arctic expedition, in the war on the River Plate, and in the Crimean war; and was Deputy Inspector-General of Bermuda Hospital during an epidemic of yellow fever. In the Crimea he was surgeon of the flagship of the Commander-in-Chief, Sir James Dundas, G.C.B., and was acting Deputy Inspector-General of the Fleet. Immediately after the battle of the Alma he landed to inquire about the provision made for the wounded; and, seeing their numbers, and the necessity of the case, he at once urged upon the admiral to send assistance. In consequence of his prompt action, five hundred stretchers and the necessary bearers were immediately landed from the ships, with as many medical officers as could be spared; and when the army medical officers, after some delay, made up their minds to apply to the fleet for help, they found that their wants had been anticipated, and that the help was actually at hand. On this occasion the presence of mind and promptitude of Mr. Rees must have saved many of the wounded from hours of suffering and of peril. Afterwards, he was in the action of the combined fleets with the batteries of Sebastopol, and was surgeon to the *Britannia* during the unparalleled outbreak of cholera among her crew. He also organised the Naval Hospital at Therapia, and landed in the Crimea with the Naval Brigade. For these distinguished

services Inspector-General Rees has received the Legion of Honour and the Order of the Medjidie; but he has as yet no English decoration, although his claims to one are certainly higher than those of officers who have been more favoured. We are informed that Her Majesty's approaching birthday will be made the occasion for conferring the distinction of C.B. upon many aspirants; and we trust that, in this distribution, the claims of Inspector-General Rees may no longer be passed over; and that, in addition to the good-service pension, he may receive also the titular distinction which he has so well deserved. The authorities who dispense honours should remember that these honours are themselves tarnished when they do not fall to the lot of men who are conspicuously worthy to receive them.

PROFESSOR OWEN ON SCIENCE AND ART.

SIR FRANCIS GRANT spoke with less than his wonted felicity when at the Royal Academy's banquet he seemed to doubt whether science and art had been successfully pursued by the same votary. He was appropriately answered by Professor Owen on the occasion. Vesalius, the creator of anatomy as a branch of inductive research, during his romantic career in Italy, aided Michael Angelo and Raphael in their acquisition of that anatomical proficiency "which lies at the basis of their marvellous power of delineating the human figure in every attitude, defying the keenest critic of the dissecting-room to detect an anatomical solecism." Vesalius' "Anatomy" was illustrated by Titian, who delights its artistic readers as much as the elegance of Vesalius' Latinity delights the scholar. But if art owes much to science, science is also the debtor of art. But for the minute and accurate delineations of Breughel, Venne, and other painters, the dodo, long an extinct bird, would have been utterly unknown to the zoologist. Before man had any knowledge of metals, when the cave was a dwelling house, and stone weapons were used to combat the mammoth, the troglodytes had their artist. "We may conceive him," said Professor Owen, "wiling away a long summer's day, after a successful chase, by carving with the point of his knife of flint the outline of his prey on some smooth surface of its bones. Such outlines of the reindeer of Aquitaine I brought away with me ten years ago from a most eligible cavern in the South of France." To the troglodyte artist we owe not merely an outline of Cervus tarandus which would suffice for any modern manual of zoology, but also equally spirited and accurate representations of the long extinct primogenial ox, and even of the mammoth, on whose own now fossil tusks its human contemporary has drawn its elephantine proboscis, its magnificent mane, and its shaggy covering of hair. "The fortunate discovery in the frozen soil of Siberia of the Northern proboscidian, with its integuments and flesh, has," says Prof. Owen, "fully vindicated the artistic skill and accuracy of this primæval prototype of our own immortal Landseer!" Goethe, the anatomist, botanist, and chemist, as well as the most purely æsthetic mind that ever drank at the fountain of Hellenic art, might have been quoted in confirmation of Prof. Owen's position that the scientific and artistic faculties are ever combined for a great and common end: "the making known by pen and pencil the beauty and the fitness of created things."

"Alterius sic
Altera poscit opem res et conjurat amice."

"It is doubtful," says Sir W. Hamilton, "if the imagination—the source of art—was more strongly developed in Homer than in Aristotle," and it is a mistake common both *pictoribus atque poetis*—as, indeed, Sir F. Grant exemplified—to suppose that in science, which has brilliant generalisations and even provisional hypotheses, the creative faculty is dormant. Artists have more need to cultivate the reason than men of science the imagination.

SANITARY REFORM IN THE PULPIT.

ADDRESSING an audience on Sunday evening last, which filled to repletion the nave of the venerable Abbey of Westminster, Canon Kingsley pleaded, with an earnestness which must have astonished not a few of his hearers, for sanitary reform, and for the provision of rational means of recreation for the lower classes of our large cities and towns, against whom recent legislation has closed on Sundays the public-house doors. He spoke of the unhealthy dwellings and the polluted atmosphere of the dwellings of the poor, their adulterated food and drink, and of the general wretchedness of their lot; contending that such a state of things is not simply a blot upon our boasted civilisation but is absolutely inhuman. No wonder that the classes so situated endeavoured to find in the abounding liquor shops an escape, however brief, from the joylessness of their homes. In the course of his sermon Canon Kingsley remarked upon a fact which is really discreditable to the metropolis—namely, that with a climate such as ours there is not to be found a public covered space of any magnitude in which people can take refuge from a sudden rain-storm, or rest a while out of the sun's heat. The public-houses naturally reap the benefit of this, except during the hours on Sunday when they are closed by law, and then there is no escape from the wet or heat. There can be no doubt that if the clergy and ministers of religion generally were to follow Canon Kingsley's example, and impress upon their congregations the importance of sanitary reform as a means, not only of improving the physical condition of the lower classes, but likewise of diminishing the great sum total of vice which so complicates our social problems, the result would ere long be manifest in ways which would be productive of the utmost benefit to the community at large.

PREVALENCE OF FEVER IN OVENDEN.

DR. R. THORNE THORNE, one of the medical inspectors of the Local Government Board, has recently been investigating into the causes of the alarming prevalence of fever in the district of Ovenden. On the completion of his inspection, Dr. Thorne communicated the results at which he had arrived to the members of the Ovenden Local Board, and the *Halifax Courier* of the 5th ult. gives a full report of his remarks on that occasion and of the discussion which ensued. The district included the whole of the Ovenden Local Board area, and a portion of the borough of Halifax. Excluding the deaths in the latter, it appeared that fever had constantly prevailed during the last three years in the area embracing Ovenden by itself. In one of those years 17 deaths from fever were registered, which probably meant considerably more than 100 cases of fever. The general mortality in the Ovenden Local Board area was large from all causes, the heavy death-rates of 24 and 27 per 1000 having been recorded. Within a fraction of a quarter of the total number of 757 deaths from all causes in the three years ending 1872 had occurred in children under one year of age. Scarlet fever had prevailed very extensively, and so had enteric fever. It was on the nature and causes of these diseases, and of the latter more especially, that Dr. Thorne principally dwelt; and he pointed out in a very clear and practical way what the standing sources of excremental pollution of air and water were in the area where enteric fever had prevailed. After careful investigation, Dr. Thorne excluded poisoning by means of milk as one of the causes of the fever in Ovenden. Here, as in so many

other places, the soakage of drainage into the soil, and the contamination of drinking-water and air, were the main factors present. The midden system prevails almost exclusively in the district, with all the evils which so commonly exist in connexion with that system from the improper construction of the middens themselves, and the ignorance and carelessness of people in neglecting to follow out the three principles that are essential to prevent them becoming nuisances and fertile causes of disease—viz., dryness of contents, the thorough mingling of the ashes with the excreta, and frequency of removal. The inhabitants could not expect places to be healthy unless they were properly drained. There were existing sources of drainage nuisance in different parts of Ovenden that ought at once to be removed, and Dr. Thorne pointed out the best methods of effecting this. He inculcated that the local authorities should have recourse to the powers given them under the Public Health Acts for remedying many of the existing evils, and for limiting the spread of contagious diseases within the Ovenden area. The special point in Dr. Thorne's address, to our minds, was the practical nature of his observations. The advice he tendered was based, as far as practicable, on making the best of things as they existed, and devising simple, effective, and inexpensive expedients for diminishing, in the meantime, evils that did not admit of being altogether overcome at once. And we are glad to notice that the local authorities seem to have been desirous of profiting by the lesson Dr. Thorne taught them.

DEATH FROM CRIMINAL ABORTION.

CRIMINAL abortion is, we fear, shockingly common in New York. Dr. T. Gaillard Thomas, Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons of that city, describes an extraordinary case, in *Hay's American Journal of Medical Sciences* for April, in which death resulted from an attempt at criminal abortion by the introduction into the abdominal cavity of a wire seventeen inches and a half in length. The patient was the wife of a physician. Her last menstrual period was overdue ten days. She laid herself upon her bed and passed the wire—which was subsequently removed at the post-mortem and proved to be, apparently, one of the longitudinal wires used in the manufacture of umbrellas—up the vagina and into the uterine canal as she thought. Its passage gave rise to little pain or hæmorrhage. Having passed the wire till its end was opposite the vulva, she then placed her finger upon it, and carried it as far up the vagina as she could, when it suddenly slipped up and disappeared. Much alarmed, she sent for Dr. T. G. Thomas, who discovered an opening in the vaginal wall on the left of the uterus, and about half an inch from the utero-vaginal junction. The wire could not be detected. Whenever the patient was placed in a sitting posture she complained of severe stitching pain in the right side posteriorly, just opposite the liver; and this was a striking symptom throughout the case. Pneumonia of the right lung subsequently set in and the patient died. At a post-mortem examination no traces of peritonitis were found. Towards the left sacro-iliac synchrondrosis the extremity of a large wire, about two inches above the vaginal roof, was detected by the finger. It was found to run deep down below the intestines just over the large vessels on the spine, across the abdomen to the liver; striking against the right lobe of this organ upon its lower face without injuring it, it had glanced backwards to the diaphragm; had penetrated this, and, plunging into the lung, entered its tissue for the distance of two inches. The right lung was found in the third stage of pneumonia. As Dr. Thomas says, it is surprising that a woman could inflict such serious lesions upon herself with so little pain, and that the lung itself could have been penetrated without the occurrence of hæmoptysis; and it is almost incredible that one who had practised medicine, was not entirely ignorant of anatomy, and had never exhibited palpable signs of absolute imbecility, should have stood by while a wife, to whom there was every reason to believe he was sincerely attached, committed so suicidal an act. Dr. Thomas concludes his paper, which is a very instructive one, by answering the question "Why was the wire not removed by gastrotomy?"

THE ADULTERATION ACT.

THE want of some specific and legal definition of the word adulteration—i.e., what constitutes adulteration—threatens to render the Act in the majority of cases a dead letter. A great deal of money has been or will be spent in legal proceedings for the purpose of deciding whether the abstraction of cream from milk constitutes an adulteration, and whether a milk merchant who sells milk avowedly as skim-milk can be brought within the clutches of the law. In fact, it has yet to be settled whether an addition to or an abstraction from any article constitutes an adulteration within the meaning of the Act, and until this is finally determined, very little practical good can be derived from its operation. Again, it appears that Dr. Stevenson, analyst for the parish of Clerkenwell, has presented a report on bread and tea to the authorities, and out of a total of forty-seven samples, twelve were more or less adulterated. As regards the tea, the analyst did not recommend a prosecution, because "he did not feel clear that the adulterations had been executed in this country." As regards the bread, Dr. Stevenson also did not recommend any prosecution, "but trusted that those who had adulterated might be warned by samples having been procured for analysis." It is pleasing, but not profitable, to know that a belief in bakers forms part of the faith of a metropolitan analyst.

It would appear, too, that analysts, as well as doctors, are prone to differ. Dr. Whitmore, analyst for Marylebone, records in his first report "that of the modes by which the quality of milk is tested the specific gravity is altogether untrustworthy." But Parkes tells us that "the comparison of the specific gravity, and the amount of cream which rises, or of fat, will be found to give, in conjunction with the physical characters, a very good idea of the quality of the milk." All these published differences of opinion in practical questions of this sort are not likely to increase the faith of the buying or selling public in the prospective efficiency of the Act.

CHANGE OF COLOUR IN THE HAIR.

SEVERAL historical and well-known cases (as those of Maria Theresa, Ludovico Sforza, and Mary Stuart) corroborate the simple but affecting statement made by the Abbé Lefevre the other day in the Tichborne trial in reference to the sudden change of colour his hair had undergone. He had heard, he said, of the death of his father, and on the following night dreamt that the details of his death were enacted before his eyes. He awoke terribly agitated, and found that his hair had become white. A curious instance lately came under our observation, in which a black retriever puppy received a violent kick from a horse, which caused fracture of the thigh. By the time the fracture had united the dog's hair had changed from a deep black to a light brindle. The dog is now fully grown, but the hair has not recovered its original colour.

To what can this change be attributed? The answer is not easy. Is it due to the extrication of air? Is it a consequence of the absorption of pigment or the result of the action of some chemical compound, as an acid, eliminated

by the skin? Under any circumstances it is singular that the influence should be limited to the hairs alone, and should not apparently otherwise affect the integument. The circumstances under which it usually occurs point to the nervous system as a principal agent, and this is supported by the occurrence of white hairs in the eyebrows and temples after severe attacks of neuralgia. Still it may be asked, is it an instance of the direct action of the nervous system upon the hair-cells, or indirect upon the vessels of the surface? It would be interesting to know how the white colour makes its appearance—from the apex to the root, or *vice versâ*.

THE SEWAGE PROBLEM.

ON Tuesday last the Vice-Chancellor Bacon, in what is described in the law reports as "two of the numerous sewage-pollution cases which have lately been brought before the Court," expressed his regret that the money which had been expended in costly litigation by the parties had not been applied in endeavouring to find a mode of abating the evil complained of. In both these cases the defendants were Local Boards, who had turned their sewage into a tributary of the river Aire, and the plaintiff was the owner of land bordering this stream, who alleged depreciation of his property in consequence of the nuisance created by the sewage. Vainly the defendants pleaded that their sewage was only one—the least—among many elements of the stream's pollution, and that their powers of remedy were insufficient. Injunctions were granted restraining them from making the stream an outlet for their sewage "so as to cause a nuisance or injure the health of the public," six months' grace being given, on the understanding that steps to abate the nuisance should be commenced forthwith. Of course there cannot be two opinions that the practice of converting our rivers and streams into open sewers must be rigorously put a stop to. But it is undeniable that the present position of many local sanitary authorities in relation to the question of sewage disposal is one of extreme difficulty. Not a few of them, we suspect, are making the painful discovery that, having already adopted (probably on what was reckoned the best, it may be even official, advice at the time) a system of sewage disposal which has heavily burdened their finances, they must now reconsider the whole subject, and try some other plan. Verily their case is hard; and the worst of it all is, that opinions are so divided as to what is the best plan to be adopted that for the present there seems no escape from the costly process of experiment upon experiment, until haply a satisfactory solution may some day be hit upon.

THE METROPOLITAN ASYLUMS BOARD.

IT is satisfactory to see that this Board appreciates the efficient manner in which the medical officers of their establishments perform duties of a laborious and complicated description. The annual report recently presented to the Board fully endorses the opinion that has been for some time generally, and, as we believe, rightly maintained, that the administration at Stockwell is conducted on proper principles and under the auspices of the present medical superintendent has been a very great success. The managers have exercised a wise discretion in giving a large amount of authority to the senior resident officer, and have made him responsible to themselves for the general conduct of the establishment. Even at the Admiralty, that eminently conservative department, it has been discovered that hospitals are best administered by medical men, and so My Lords of the present generation have properly abolished the office of captain-superintendent at the naval hospitals, and have placed inspectors-general in command. All committees and managers of institutions in London who are cognisant of their duties and responsibilities now acknowledge the propriety and economy of adopting this line of action.

THE DERBY INFIRMARY.

WE lately gave a brief account of the controversy that has been raging at the Derby Infirmary, and have now to record that it appears to be in a fair way of being happily settled. Many of the members of the Weekly Board regarded the decision to appoint a committee of inquiry as a censure upon themselves, and resigned their offices. At the last Quarterly Court their successors were appointed, after a sharp contest; and the Board being thus almost reconstituted, it was felt that it might itself institute the necessary inquiries into the past management of the charity. The resolution to appoint a committee was, therefore, rescinded, the more readily since some of the gentlemen nominated for the purpose had declined to serve, and others were among the new members of the Weekly Board. It seems probable that this course of events is the best that could have occurred, since it would have been difficult for the old Board to wipe out the memory of certain "bygones" that stood between it and the establishment of proper relations with the officials of the infirmary. At the same meeting the secretary announced a munificent donation of £1000 from each of the four sons of the late Mr. Wright, of Osmaston, and a donation of £500 from the late Miss Strutt. The pecuniary difficulties of the charity are thus greatly lightened, and we trust any changes that may take place in its internal administration will not only leave its excellent system of nursing in unimpaired efficiency, but will also relieve the lady superintendent from duties that must be as much beyond her strength as they are beyond her legitimate province.

CONVICTION OF A DRUGGIST UNDER THE ADULTERATION ACT.

MR. J. T. HALL, a chemist and druggist, of Church-street, Blackburn, was convicted at the Police Court in that town, on the 30th ult., of adulterating vinegar with hydrochloric acid, and was subjected by the Bench to a fine of five pounds and costs. The circumstances which led to his conviction were peculiar. It seems that a child named Peter M'Grath had died shortly after taking some cough medicine which had been procured at Mr. Hall's, and the coroner's jury returned a verdict of Manslaughter against the mother, who administered the medicine. Professor Railton, who analysed the contents of the stomach, found in it an ounce and three-quarters of liquid containing 3·4 per cent. of hydrochloric acid and ·38 per cent. of morphia, "equal to four grains of opium." The stomach was inflamed. The Grand Jury at the Liverpool Assizes ignored the bill against the child's mother, but represented to the Court that the mixture sold by the chemist was of a highly dangerous character and contained adulterated material, and that in their opinion the case should be thoroughly investigated. The case against the druggist was perfectly clear. The cough medicine, which he made in quantities of two gallons at a time, was composed of vinegar, treacle, sugar, oxymel of squills, and tincture of opium flavoured with mint; an ounce and a half of laudanum was contained in the two gallons, and the vinegar used contained 4·6 per cent. of hydrochloric acid, which acid, it was proved, was added to the vinegar on the premises of the druggist.

This case will serve as a caution to druggists; although the most serious aspect of the affair is, we think, not the addition of hydrochloric acid to vinegar, but the careless and reckless way in which powerful medicines are

permitted to be sold by ignorant tradesmen to still more ignorant purchasers. It is not clear, supposing the composition of the cough mixture to be correctly given, how there came to be so much opium (which was undoubtedly the fatal ingredient) in the stomach of the child. The case seems to us to require further investigation.

THE PUBLIC HEALTH.

THE Registrar-General's Quarterly Return for the three months ended March last exhibits in its leading features results which most persons will regard as highly satisfactory—that is to say, there was an increase in the proportion of marriages to the population, the birth-rate exceeded the average, while the death-rate was no less than 2·2 per 1000 below the average of the ten previous March quarters. The people, it is said, were unusually healthy, especially in the towns; fortunately, "increased attention to hygienic measures" coincided with "an abundant rainfall," with the "absence of nights of excessively low temperature," and with a "subsidence of epidemics." A marked decline appears to have taken place in the mortality from zymotic disease; the annual death-rate in the quarter from small-pox, measles, scarlet fever, diphtheria, whooping-cough, fever, and diarrhœa, was 2·4 per 1000, in comparison with 3·6, 3·8, and 4·3 in the three previous corresponding quarters. In the eighteen largest English cities and towns the zymotic death-rate was slightly higher than the rate for the whole country, and in fifty other large towns the rate was a little above that in the eighteen towns. The small-pox epidemic has declined, but the fatal cases last quarter were yet more than twice as numerous as they were before the outbreak in 1870; the disease killed 7720 people in the March quarter of 1872, and 1084 last quarter. Typhoid and other continued fevers caused 3402 deaths, a considerably less number than occurred in either of the three preceding March quarters. The fever death-rate was less among the six millions living in the eighteen largest towns than the average for the whole country, and this fact, we take it, indicates pretty clearly that the time has arrived for vigorously prosecuting rural sanitation, inasmuch as it is evident that our town populations, on the whole, are relatively now in a healthier condition than those of the country districts.

A DENTAL APPRENTICESHIP.

A RECENT action at Westminster by a dental pupil against his master for not instructing him in the operative, as well as in the mechanical, part of his profession, gave rise to some facetious remarks on the part of the judge at the time, and to some jocose comments in the daily papers. Although, no doubt, it is now, as it has always been, difficult if not impossible for any dentist in good practice to introduce a pupil into his consulting-room to witness, and perhaps assist in, his operations on private patients, yet it may be satisfactory to both the medical profession and the public to know that of late years the opportunities for dental pupils to study their profession under competent instructors have largely increased. The establishment of the Dental Hospital in Soho-square, with the School of Dental Surgery attached to it, gives dental pupils precisely the same opportunities that medical students have at our general hospitals and medical schools. That is to say, the dental student is instructed in the theory of his art by lectures, has the opportunity of seeing theory carried into practice by competent instructors, and then, when fully qualified by observation, is permitted to perform some of the simpler operations under the eye of the teacher. In this way, the coming race of dentists are fully instructed in the business of their profession, and no one can be considered fully educated who has not passed through the London or some other dental school. It would doubtless be "hard upon the patients," as observed by Mr. Justice Brett, were they to be at the mercy of every youth who was anxious to try his 'prentice hand on their jaws; but fortunately this is neither necessary nor admissible, and as the art of the dentist consists rather in saving than extracting teeth, we hope nothing we have said may deter patients from applying at the Dental Hospital.

HOSPITAL SUNDAY.

LAST Sunday week Southampton held its first Hospital Sunday, and up to the end of the following week £500 had been paid into the banks as a result of the collections. Considering how many conflicting interests there must have been to conciliate, perhaps this sum is not less than was to be expected. We hear that little more than one-half of the ministers have as yet responded to the invitation to appeal to their congregations, and that the workmen of but few firms have contributed, simply from the want of someone to take the initiative in each firm. It was mooted to have a collection on all ships which sail from the port, no matter in what part of the world they might be, and it was calculated that the crews would raise amongst themselves nearly £500, to say nothing of the contributions of the richer passengers. From the generous examples set by the crews of the ships of one coal merchant of the town, we trust in future years it will be more generally followed, for we have no doubt of the very large and hitherto little thought-of income there is in store from this source for the hospitals of seaport towns.

The sums collected will be divided, as a specially appointed committee may deem right, amongst the Infirmary, Dispensary, Homœopathic Dispensary, Nurses Institute, and a Society for attending Women in Childbirth at their own homes.

HEALTH OF LEICESTER.

FROM the recently published report of Dr. J. Wyatt Crane, medical officer of health for the borough of Leicester, it appears that in 1872, with an estimated population of 100,829, 2648 deaths actually occurred in the borough, giving a death-rate of 28·262 per 1000 for the year, as against one of 27·374 and 25·841 per 1000 respectively in 1870 and 1871. Rather more than half the total deaths last year, or 1347, were in children under five years of age, and of these 143 were from diarrhœa in infants under six months old.

Dr. Crane in his report reminds the sanitary authority of their duty to multiply, when opportunities offer, the breathing spaces in the older and more crowded parts of the town; adding his great experience to support the conclusion of Dr. Farr, that the "general" mortality is in proportion to the density of the population.

This death-rate for 1872 is remarkably encouraging when we call to mind that an epidemic of small-pox visited the town in that year, 346 deaths being recorded from this cause alone. In the small-pox hospital a fraction less than 1 case in 8 proved fatal, and upon the hypothesis that a like mortality prevailed among the cases treated in private houses, it is deduced that 3·441 per 1000 of the population had small-pox during the year. Dr. Crane, judging from past experience, indulges in a hope that five or six years at least will elapse before Leicester has another epidemic of small-pox.

Of the total deaths in Leicester last year, 448, or about 16½ per cent., were unregistered, or certified by unlicensed practitioners; and it becomes an important question how

this state of affairs has arisen, for, as mentioned in our recent article on the subject, Dr. Farr states that in London only 2 per cent. of the deaths are thus "unregistered," and we put down as an outside estimate for the whole of England 8 per cent. per annum of such uncertified deaths.

THE VOLUNTEER SERVICE.

A SERIES of most instructive and interesting lectures are being delivered at the United Service Institution to officers of the Reserve Forces on various subjects connected with the art and science of war. Coast defence, field railways, commissariat arrangements, and various administrative duties have all found or will find a place, but we hear nothing at present as to any lecture or lectures pertinent to the medical officers of the service. Having regard to the fact that since the promulgation of the Auxiliary and Reserve Forces' Circular, bearing date 1st of January, 1873, many medical officers are anxious to earn for their corps the special capitation allowance, it would be a graceful as well as most useful proceeding on the part of the heads of the Army Medical Department to make arrangements with the Committee of the United Service Institution for the delivery of one or two lectures on military hygiene, service in the field, &c. We are assured that this course of action would be greatly appreciated and heartily welcomed by the medical officers of the Reserve Forces.

AN ETHNOLOGICAL WAR.

THE enmity between France and Germany has been transferred from the battle-field to the lecture-room, and M. Quatrefages has been eagerly followed in his disparaging speculations as to the genesis of the North German race. M. Quatrefages, on the publication of his views last year, was held to have done more harm to his own reputation than to the Prussians, and scarcely deserved the elaborate and conclusive refutation he experienced at the hands of Professor Virchow. If M. Quatrefages could prove that the Prussians came originally from the tablelands of Central Asia, he would only be doing what Dr. Prichard long ago did for the whole Celtic race—the French part of it included. But, arguments from anatomical structure and moral development apart, the question of language is enough to dispose for ever of all attempts to find a Mongol progeniture for the North Germans—a question in which the French *savants* are as little a match for their German antagonists as Benedetti was for Bismarck, or Macmahon for Moltke.

POLICE DIAGNOSIS OF DRUNKENNESS.

A RECENT more gross case than ordinary of police misapprehension on the subject of intoxication may possibly lead the Commissioners to adopt some stringent rules as to summoning medical advice in *all* cases of insensibility. A man and his wife are taken to the police station charged, the woman with intoxication and consequent insensibility—or rather with insensibility and consequently (in the eyes of the police) with intoxication,—the man with refusing to "move on" and leave his wife to the tender mercies of the police-cell. The woman is taken to the cell, and, after some delay, on the urgent solicitation of the presumably drunken because obstinate husband, the divisional surgeon is sent for, who at once pronounces the woman sober, but to be suffering from effusion on the brain, from which she shortly dies. We need hardly say the coroner's jury expressed their indignation at the treatment the unfortunate couple had been subjected to.

Is it not after all a mere question of petty economy that leads to such frequent unhappy deaths at our police stations? We cannot but suppose every policeman would willingly shift the responsibility of deciding as to the cause of insensibility in every case on to professional shoulders if he could; and is it not the fear of getting "wigged" by the authorities in Whitehall-place for incurring too many medical fees that prevents the divisional surgeon being more frequently summoned? These cases occur mostly at night, when very properly the recognised fee is 7*s.* 6*d.* against 3*s.* 6*d.* for a day visit. We cannot but fear that motives of economy are answerable for not a few of the recent distressing occurrences.

THE CORONER OF BURY ST. EDMUNDS.

THE views of the coroner of Bury St. Edmunds are sufficiently remarkable to call for some notice. He has published a handbill of "instructions to police," setting forth that in cases of sudden death not attended by a medical man, it is the duty of clergymen and parish officers to inquire into the circumstances and decide as to the necessity for a coroner's inquest. One paragraph in this remarkable document runs thus:—"Unless there is reason to suspect neglect or foul play, the clergyman can, by law, bury a corpse without a certificate from a coroner, a doctor, or a registrar, and it is his duty to do so." If clergymen see no objection to such a legal doctrine, it is not, perhaps, for doctors to complain of it. A clergyman can in any case, if he see fit, bury without a certificate, but unless application be made to a registrar or a coroner before the burial, and a certificate obtained, the clergyman is put to the trouble of giving notice of the funeral, under a penalty of £10 for omission to do so. We apprehend that clergymen will ask for some higher legal authority than the coroner's before undertaking the duty of instituting inquiries as to the cause of death and deciding as to the necessity for inquests—in other words, before doing the coroner's work.

THE PATHOLOGY AND TREATMENT OF WHOOPING-COUGH.

IN a paper published in the *Swiss Correspondenzblatt* of April, 1873, Dr. Rudolf Meyer, of Zurich, gives an interesting account of some auto-laryngoscopic observations he made whilst suffering from a well-marked attack of this disease. He found the mucous membrane of the under-surface of the epiglottis and of the adjoining parts of the entrance into the glottis, and especially that covering the so-called arytenoid cushion, swollen and red, whilst that of the adjoining parts of the pharynx was also distinctly inflamed. The vocal cords and the lateral and internal parts of the larynx were normal. The inflamed parts were highly sensitive to the least touch, bringing on spasmodic cough. In another case, occurring in a middle-aged woman, the same conditions were ascertained to be present. Dr. Meyer effected a cure in his own person in a few days by insufflating some powdered alum; but on trying the same plan with the lady retching was induced, and he was obliged to use solutions of alum and tannin, which proved successful, though less rapid in action. The plan suggested by Dr. Meyer may be carried out with advantage in adults who are steady, but it is difficult to see how it could be applied in children.

POSTHUMOUS CHARITY.

THE late Miss Brackenbury, of Brighton, among other munificent charitable bequests, left £9000 to the University of Durham and £10,000 to the Royal Albert Asylum for Idiots, Lancaster; to St. George's Hospital and St. Bartholomew's Hospital, £2000 each, the interest to be given annually as prizes to the pupils most proficient respectively in medicine and surgery; to the Westminster and Middle-

sex Hospitals, £2000 each; and to the Royal Hospital for Incurables, £2000. To the Brompton Cancer Hospital, the Hospital for Consumption, Fulham-road, the Royal Free Hospital, the Earlswood Asylum for Idiots, and the Society for Widows and Orphans of Medical Men in London, £1000 each. The following charities in or near Manchester have received £2000 each—viz.: The Cheadle Convalescent Hospital, the Manchester Royal Infirmary, the St. Mary's Hospital and Dispensary for Women and Children, and the Ardwick and Ancoats Dispensary. The Salford Infirmary and Dispensary has received £1000, and the Infirmary for Diseases of the Eye, Old Trafford, £500. The Brighton charities have been benefited as follows:—The Brighton and Sussex County Hospital, £1000; the Brighton and Hove Dispensary and the Brighton Lying-in Institution, £500 each. A noble list of "bequests," which will perpetuate the name of the bountiful giver, and the benefits of which will be felt by thousands on whom disease has laid its hand.

THE VACCINATION DOCTRINES OF THE LOCAL GOVERNMENT BOARD.

WE are glad that, notwithstanding the very remarkable letter from the Local Government Board on the subject of second prosecutions under the Vaccination Act on which we commented last week, the Isle of Wight guardians have resolved to enforce the Act by a second prosecution when necessary. They have done this by a majority of 24 to 9. The earnest friends of law and vaccination were ably represented by the Rev. C. Theobald and the Mayor of Newport. The Mayor of Newport said: "For the sake of the poor, of whom they were the guardians, it was their duty to carry on these prosecutions; for in the event of an outbreak of small-pox, resulting from a neglect of vaccination, who would be so likely to suffer from it as the poor in crowded districts?" Anti-vaccinators must begin to see—though their sight is very weak—that they are fighting a losing battle against two great forces, common sense and medical science.

THE CONDITION OF FLEETWOOD.

WE understand that scarlet fever is prevailing to an alarming extent in the town of Fleetwood, where, we are told, no less than five funerals took place in one day. The sanitary condition of the town is far from what it should be. Cesspits abound, and as the soil on which the place is built is sandy, it has, in all probability, become impregnated with sewage. We should be glad to hear that the local authorities were bestirring themselves in executing some measures for those sanitary improvements of which the town apparently stands so much in need. The place is, we believe, much resorted to by visitors during the summer months; but if the accounts we hear of its condition be correct, families will no doubt deem it prudent to seek change of air elsewhere, and the people of Fleetwood may expect some Government inspectors as their next visitors.

THE CIRCULATION IN THE CORONARY ARTERIES.

M. REBATEL is reported, in a recent number of the *Archives de Médecine* (Feb. 1873), to have lately studied this subject with much care. It is well known that great difference of opinion exists amongst physiologists as to whether the coronaries are injected by the systole of the heart or during its diastole by the reaction of the arteries. M. Rebatel finds that the current of blood in the coronary arteries of the horse undergoes a double variation in its rapidity. The first increase, which is strongly marked, is coincident with the ventricular systole, and is due to the contraction of the ventricle. The second increase is coincident with the diastole, and is explained by him as dependent upon the diminished obstruction the blood experiences in passing through the peripheric capillaries; to us, however, it seems more likely to be due to the elastic recoil of the arteries.

PUBLIC HEALTH BILL.

SIR C. ADDERLEY, in moving the second reading of this Bill on Wednesday night, explained that it consisted simply of a collection of all the amendments in the sanitary law which had been recommended by the Sanitary Commission. It was desirable that they should make the necessary amendments in their existing sanitary legislation before proceeding to consolidate the statutes on the subject. Mr. Corrance moved, as an amendment, that it was inexpedient to add to the duties at present imposed upon sanitary authorities constituted by the Act of 1872, until their powers were better defined by a consolidation of the statutes, and appointments had been completed in conformity with the intention of the Act. Mr. Hibbert said the Bill had the support of the Local Government Board, which was of opinion that it included clauses which were required to make more perfect the Act of last year. Mr. Collins opposed the second reading. The debate was, however, suspended.

INCREASE OF STATURE AT WILL.

M. OLLIER, of Lyons, is stated, in the *Wiener Med. Zeitung*, to have recently drawn attention to the fact that the bones of a young animal can be caused to acquire a considerable length or to remain short at will. If the periosteum of the diaphyses be irritated, the bones increase in length; whilst, on the other hand, if the cartilage of the epiphyses be irritated, by which the bone usually receives its accessions of length, ossification soon takes place in them and growth is stopped.

THE EXECUTIVE COMMITTEE OF THE GENERAL MEDICAL COUNCIL.

THIS Committee met for a number of hours both on Wednesday and Thursday. The chief business discussed, we believe, was the visitation of the examinations of the different examining bodies. Independent of members of the Council, about a dozen other gentlemen were selected to be asked to visit various examinations, and report on them to the Council. The Committee did not, as far as we can learn, spend much time in discussing Mr. Headlam's Bill. They did not regard its consideration as within the sphere of their duties.

TRANSFUSION.

ON Saturday last, at the Children's Hospital, Great Ormond-street, Mr. Warrington Haward resorted to transfusion in the case of a child who was moribund from purpuric hæmorrhage. Eleven ounces of blood, defibrinated with an "egg wisp" and strained through a hair sieve, were introduced, the effect being to revive the child, who, for a time, became conscious, complaining of headache. After the lapse of a few hours, however, she again became pulseless and sank. The post-mortem examination revealed no evidence of embolism.

THE LOCAL ANARCHY BOARD.

OUR contemporary the *Practitioner* has added to its columns a department of Public Health, and in an introductory article on Sanitary Organisation in England, has incisively summed up the whole case against the Local Government Board in respect of the initiation of the Public

Health Act, by stating that the Board, so far from having shown itself to be a board of local government, has proved itself to be a "Board of Local Anarchy." Should not this name be substituted for the existing name in the next amending Act of the Public Health Laws?

SKIN-GRAFTING.

THE little girl upon whom Mr. Pollock first practised M. Reverdin's plan of transplanting skin is now in St. George's Hospital suffering from some cutaneous affection. It will be remembered that Mr. Pollock brought her before the Clinical Society, and that it was in this case he transplanted a piece of black skin which, though it prospered for a time, ultimately ulcerated and perished. We think with Mr. Pollock that this first case is the most successful one of skin-grafting yet published, and the worst case in which the method has been adopted. The new tissue, extending from the nates down the back of the thigh to below the knee, shows no tendency to contract, and possesses sensation.

A NOVEL method of treating drunkards was lately initiated by a nurse in the Fulham Workhouse on the person of an inebriated Irish pauper. Mr. Patrick O'Brien, being under the influence of liquor, was compelled, after a little violent exercise in the shape of kicking and dancing, to lie down on the floor of the ward. There he was found by the nurse, who showed herself fully equal to the emergency by promptly applying a mustard poultice to the bacchanalian. Mr. O'Brien was afterwards charged, at the Hammersmith Police-court, with "refractory" conduct, but the magistrate, evidently considering that he had been sufficiently punished, discharged him. This episode loses the clinical value it might otherwise have, by unfortunately leaving us in the dark as to the part of the patient's person to which the blister was applied.

A SECOND human skeleton is now said to have been discovered in the caves of Mentone. Human remains have also been found near Laval. The cave in which they were found contained chipped flints, incised bones, and a hearth with calcined bones, together with the remains of many animals, among which the cave hyæna, the common fox, the woolly rhinoceros, the horse, and the reindeer are enumerated. In a quarry in the neighbourhood of the cave an interesting series of animal remains has been found, including the cave hyæna, the cave lion, the marmot, a large hare, the mammoth, and the woolly rhinoceros, besides the fox, boar, horse, and several oxen and deer. Numerous bones of birds were also found.

"SANITARY LEGISLATION" was the last of the series of afternoon scientific lectures delivered in the theatre of the Royal Dublin Society. The lecturer, Mr. R. O. Furlong, barrister-at-law, reviewed and condemned the complexity, the confused wording, and practical inefficiency of the sanitary laws in Dublin. He concluded a trenchant argument in favour of a comprehensive and effective Government Bill, by urging the importance of teaching sanitary science in schools.

AT a meeting of the Social Science Association, held in Adam-street, Adelphi, on Monday last, a paper was read on Legal Securities for Life at Sea, by Captain Dawson, R.N. In the course of the discussion which followed, Dr. Norman Chevers, of Calcutta, who is well known as an authority on the health of seamen, spoke most emphatically as to the beneficial effect of the sanitary clauses of the Duke of Richmond's Act in diminishing scurvy and in improving in many respects the condition of the mercantile marine of the country.

IT is reported that Admiral Schomberg has been appointed by the Government to inquire into the way in which the emigration officers at Liverpool perform their duties in connexion with the examination of food, &c. We trust due attention will be given to the fact that the medical officers have at present very little control over matters directly relating to the health of the emigrants—viz., food, site of hospitals, ventilation, &c.

THE last Thursday in May or the first Thursday in June will witness the French Academy's reception of M. E. Littré. He will be received by M. de Champagny, who is *très-clerical*, a fact which will only give a certain piquancy to the sitting. M. Littré is still an invalid, and it is doubtful whether he will be able to read his discourse. In that case, the duty will devolve on M. Legouvé.

THE distribution of prizes to the students of the medical department of King's College will take place on June 6th, when H.R.H. the Duke of Edinburgh will preside. On the same day a King's College Hospital "Old Students' Dinner" will take place at Willis's Rooms, when all old students are invited to attend. The chair will be taken by John Wood, Esq., F.R.S.

THE *New York Herald* of the 26th ult. publishes the following telegram from its Vienna correspondent: "On the 25th there were twenty cases of sporadic cholera scattered, and individual attacks were brought to the hospital yesterday. Five of the number proved fatal. There is an effort for the concealment of the fact of the presence of the disease in the city."

SIR FREDERICK CHAPMAN, Inspector of Hospitals, visited the new barracks on the Castle Hill at Edinburgh on Saturday. A brief examination of the buildings sufficed to make him form a very unfavourable opinion of their sanitary features. Sir Frederick will submit such plans as he thinks necessary for their alteration, at the joint expense of the Government and of the city.

Now that the warm weather is coming on, and several projects for the more efficient watering of our streets are being discussed, we would like to ask railway directors and their engineers whether something cannot be done in that direction for alleviating the discomfort experienced by railway travellers on the suburban lines, who often arrive in town begrimed with dust and dirt.

THE anti-Contagious Diseases Acts agitation seems happily to be losing ground. At the Bath election its promoters repeated the efforts which have more than once turned the day, but on this occasion they were unsuccessful, Lord Chelsea, against whom their tactics were leveled, being returned by a majority of 260 over their nominee, Mr. Murch.

WE understand that at a meeting of the managers of the Royal Edinburgh Asylum for the Insane, held on the 25th ult., it was resolved that the appointment of a successor to Dr. Skae, the late lamented physician-superintendent, should take place on the 20th May next, and that the salary should be £700 per annum, with house.

THE medical classes in the Andersonian University commenced their summer session on Tuesday, when Dr. Lindsay, the new Professor of Medical Jurisprudence, delivered his opening lecture.

THE Royal Institution has drawn up a vote of condolence with the family of the late Dr. Bence Jones.

WE regret to learn that the Surbiton Cottage Hospital is experiencing slight pecuniary embarrassment. With its wealthy surroundings, however, we think that its claims need only to be made public to ensure an augmentation of the comparatively small yearly fund which has hitherto enabled the institution to thrive.

THE Paddington Board of Guardians have resolved to introduce singing birds into the sick-wards of their workhouse, which they hope will help to lighten the weariness and monotony inseparable from the condition of a pauper invalid.

THE controversy as to the necessity of "promoting euthanasia" seems not to have affected the local mind at Oxford, Prince Leopold having laid the foundation-stone of a new hospital for incurables there on Tuesday last.

AT a meeting of the Faculty of Physicians and Surgeons of Glasgow, held on the 5th inst., John Gibson Fleming, M.D., F.R.S.E., was, we are glad to learn, re-elected Representative of the Faculty in the General Medical Council.

THE annual Ball in aid of the funds of University College Hospital will take place at Willis's Rooms, St. James's, on Thursday, June 5th, under the distinguished patronage of Her Royal Highness the Princess of Wales.

A LIVERPOOL druggist has been fined for selling adulterated quinine. A direct operation of the Adulteration Act will probably be the elimination of a great deal of quinodine, salicine, &c., from the drug market.

THE Windsor Royal Infirmary has had new convalescent wards added to it, through the benevolence of Mr. John Hibbert, which were formally opened last week by H.R.H. the Princess Christian.

THE quarterly dinner of the Edinburgh University Club takes place on the 14th inst., in the St. James's Hall, under the presidency of Sir Alexander Armstrong, K.C.B.

ON most of the Scotch moors the ground disease is committing serious ravages among the birds.

SIR HENRY HOLLAND has been elected President of the Royal Institution for the ensuing year.

THE second reading of Mr. Plimsoll's Bill comes off on Wednesday, the 14th inst.

FURTHER RESEARCHES UPON THE COAGULATION OF FIBRIN.

A LONG essay has recently appeared in Pflüger's *Archiv* by Alexander Schmidt; an abstract by Dr. Salkowski appears in the *Centralblatt* for January 11th, 1873, and of the latter the following is a translation.

1. *The fibrino-plastic substance or paraglobulin.*—The author first argues against the view of Brücke that the albuminous compound precipitated from diluted blood-serum by carbonic acid (for which the author prefers the name of fibrino-plastic substance) is not a unique and independent body, but ordinary serum-albumen, which in the act of precipitation carries with it a fibrino-plastically working body. The main objection he has to this view is that it proceeds from an unproven hypothesis—from the hypothesis, namely, that pure serum-albumen is not itself soluble in water, but only in combination with the alkalies and their salts. In a certain sense, however, the views of Brücke accord with more recent observations of Schmidt; for Schmidt has satisfied himself that, in order that coagulation should take place, it is requisite that there should be not two substances only, the fibrino-plastic and the fibrinogenous, but a third which acts as a kind of ferment. This ferment falls with the fibrino-plastic substance when carbonic acid is transmitted through serum; and so far Brücke is correct in stating that the latter substance does not itself possess the fibrin-forming property, but that this power is due to its admixture with some other compound. But he is at the same time incorrect in stating that the principal mass of the precipitate is inert, since it really constitutes an important factor in the process.

2. *Separation and chemical characters of the fibrino-plastic substance.*—A solution of the fibrino-plastic substance containing an extremely small quantity of soda is completely precipitated by exact neutralisation with acetic acid, but if the solution contain alkaline salts, the amount of acid must be proportionately increased. Hence, for its precipitation from blood-serum, acetic acid must be added till the whole presents a distinctly acid reaction. The blood-serum of the ox contains from 0·72 to 0·8 gramme of fibrino-plastic substance in 100 cubic centimetres; the blood-serum of the horse, 0·31 to 0·56. When dissolved in solution of soda, and again precipitated with acetic acid, it leaves no ash when burnt. It is soluble in acetic acid, in solutions of soda carbonate and bicarbonate, and ordinary phosphate of soda, and in the neutral alkaline salts; but whilst equal quantities of the three first-named bodies dissolve equal quantities of the fibrino-plastic substance, whether much or little water be added, it depends, in the last-named salt, on the degree of concentration of the solution. Hence, a solution of fibrino-plastic substance in the neutral alkaline salts is rendered cloudy on the addition of water.

Other conditions maintaining the fibrino-plastic substance in solution must exist in blood-serum. For if the fibrino-plastic substance be obtained from a certain quantity of blood-serum, and it be dissolved in an equal volume of water with the addition of a quantity of carbonate and phosphate of soda and chloride of sodium equal to that contained in the blood, nearly the whole of the fibrino-plastic substance is precipitated on neutralisation of the solution, whilst the original blood-serum remains perfectly clear when it is neutralised, and will even dissolve a considerable additional quantity of the fibrino-plastic substance. The dissolving agent is perhaps in the latter case the serum-albumen. The fibrino-plastic substance, moreover, dissolves in water if we conduct through it a stream of oxygen or of carbonic acid gas, but from the carbonic acid solution it is again precipitated by oxygen. Schmidt then proceeds to point out various objections to Brücke's view, that the fibrino-plastic substance and serum-albumen are identical, amongst which he particularly insists, first, upon the fact that whilst 1 gramme of fibrino-plastic substance requires about 0·13 gramme of chloride of sodium for solution, 1 gramme of albumen requires 1·97 grammes of chloride of sodium; and, secondly, that the saturated solution of the fibrino-plastic substance is rendered cloudy by the addition of water, whilst that of serum-albumen remains clear.

3. *The fibrinogenous substance.*—This also does not precipitate from its natural solution by exact neutralisation, but requires that water should be added, and sufficient acetic acid to give a distinctly acid reaction. Schmidt recommends, as the best method of obtaining it, the introduction of some powdered common salt into the fluid containing it—as, for instance, into hydrocele fluid. If the thus obtained precipitate after washing be redissolved in water, and a little fibrino-plastic substance be added, coagulation quickly occurs.

4. *The fibrin ferment.*—The fibrinogenous and fibrino-plastic substances constitute the material from which fibrin is formed; its quantity increases with the quantity of one or other of these factors, and, indeed, within certain limits, indifferently with either. In order that coagulation should take place, however, there is still a third body requisite which causes the two fibrin generators to unite to form fibrin, and this Schmidt designates fibrin ferment on the following grounds:—1. Small quantities of this substance produce the same effects as large when introduced into the same fluid, except that in the latter the formation of the fibrin is much more rapid. 2. The activity of the fibrin ferment (as expressed by the rapidity of coagulation) augments with increase of temperature, and attains its maxi-

mum at the temperature of the body; it is destroyed at a boiling temperature, and is greatly checked, if not abolished, at 0° C. 3. If coagulation have been effected in a fluid by fibrin ferment, and the fluid be filtered from the fibrin, the filtrate can, though less energetically, act as a coagulating fluid.

All fluids existing in the animal body which coagulate when removed from the body, contain fibrinogenous and fibrino-plastic substances, but no ferment; this first develops in them after their removal from the body, sometimes quickly, as in the blood, sometimes slowly, as in the transudates. To obtain fibrin ferment blood-serum is precipitated by the addition of fifteen to twenty times its volume of strong alcohol. After fourteen days the fluid is filtered, the residue dried over sulphuric acid, finely pulverised, and extracted with cold water. This ferment is carried down with the fibrino-plastic substance when this is obtained by the acidification of blood-serum; but the blood-serum does not lose quite all its ferment. Schmidt has been unable to obtain the fibrino-plastic substance free from ferment.

5. *Origin of the fibrin ferment.*—It matters little for the activity of the fibrin ferment whether it is obtained from serum or from blood, except that in the latter case its solution is frequently slightly coloured. Blood received directly from the vein into alcohol gives no active ferment, which is therefore thus shown not to be performed in blood, but to be developed after its removal from the body. The solution of the ferment is effective in proportion to the time which has elapsed between the venesection and the precipitation by alcohol, and reaches its maximum when ordinary coagulation has taken place, after which it does not appear to undergo any increase. A temperature of 0° C. retards, but does not completely prevent, the formation of ferment. A series of researches have convinced him that neither the white nor the red corpuscles play any part in the formation of the fibrin ferment.

6. *Relation of oxygen to fibrinous coagulation.*—If the solution of ferment on the one hand, and the fluid which contains the fibrin generators on the other hand, be treated with carbonic oxide or hydrogen, no coagulation occurs in the mixture. If the mixture be removed from the action of the gases and exposed to the air, coagulation occurs, providing the action of the above gases have not been too protracted. Occasionally, however, it does not coagulate. The presence of oxygen, therefore, seems to be necessary for the occurrence of coagulation.

7. *Differences in the relation of the fibrino-plastic substance and of the fibrin ferment to fibrin coagulation.*—In order that all the fibrinogenous substance should be used up in the formation of fibrin in a fluid containing fibrinogenous substance (and ferment?), when fibrino-plastic substance is added to it, a certain quantity of the former is required. If the quantity of fibrino-plastic substance be increased, the weight of the excreted fibrin increases, and a larger quantity of the fibrino-plastic substance participates in the formation of fibrin than before, yet only to within certain limits, beyond which further increase causes no increase in the amount of fibrin formed. There is some difficulty in establishing this fact, because in no case is all the fibrino-plastic substance added used up in the formation of fibrin, a certain quantity remaining dissolved in the fluid, a portion the amount of which depends on the chemical nature of the menstruum. An increase of the fibrin ferment with unaltered amount of the two fibrin generators is without influence on the quantity of the fibrin formed, but hastens the coagulation to a remarkable degree.

8. *Action of the red blood-corpuscles upon the coagulation of fibrin.*—The colouring matter of the blood, the hæmoglobin, and the blood-corpuscles, as a consequence of the hæmaglobin they contain, play an important part in the coagulation of fibrin. It may supply none of the above-given factors requisite for the coagulation of fibrin—the ferment, the fibrinogenous or the fibrino-plastic substance (and the author returns to his old view that the blood-corpuscles are rich in fibrino-plastic substance); nevertheless the hæmoglobin greatly hastens the advent of coagulation when these factors are present. The colouring matter undergoes no essential alteration during the process, but the same quantity will continuously exercise its accelerating power. The blood-colouring matter participates in this property with carbon, platinum, asbestos, animal ferments, and in particular with all bodies capable of decomposing peroxide of hydrogen. It is remarkable that hæmoglobin only possesses this power as long as it is not crystallised; and in correspondence with this, Schmidt shows that its capability of diffusion differs remarkably according to whether it is only dissolved or is crystallised and dissolved. In the former case the solution decomposes peroxide of oxygen violently, and the colouring matter is not affected—in the latter case more slowly and with loss of colour. True hæmoglobin is non-diffusible; but the crystallised diffuses, though with difficulty. The fibrin ferment differs from others in its want of power to decompose peroxide of hydrogen. Schmidt seems to regard its action as a kind of catalytic influence.

THE LONDON MEDICAL SOCIETY'S CONVERSAZIONE.

THE annual *conversazione* of the Medical Society of London was given last Monday, at their new rooms in Chandos-street. Dr. Cockle delivered the oration, and, alluding to the Society having existed just a century, reviewed the valuable truths inculcated by its first prominent members, and, paying a tribute of respect to their names, expressed a hope that a century hence would find no more cause than existed now for blaming those to whom a hundred years ago the guidance of the Society had been entrusted. The room was lighted by the Silber light, which was grateful and powerful, though, owing to the lamps being placed too low, it proved insufficient to illuminate the pictures which decorated the walls.

Nothing attracted greater interest than a sand-blast apparatus, exhibited in action by Mr. Braine, and lent, with specimens of its work, by Professor Tyndall. This is an American invention of simple construction. Specimens in glass, marble, and slate illustrated the power and use of this sand-blast. Thus we saw a picture, as it were engraved on a piece of glass; a photograph having been first taken upon it, the more soluble parts of the collodion coating were removed, and the sand-blast being applied, the finest points of the picture were brought out with great distinctness. In another specimen, a perforated sheet of zinc having been used as the protecting medium, the sand-blast had, in less than an hour, at the exposed parts, removed almost the entire thickness of a three-quarter-inch plate of glass. A carved marble slab and a slate name-plate which had been worked by this process, were exhibited. Mr. Braine stated that, in like manner, patterns of the finest lace might be traced upon glass without damage to their structure; tissue paper actually proving a sufficient protecting medium.

Beautiful and indelible specimens by the Autotype Fine Art Company, with loans by Drs. Wiltshire, Sparshall, and Willett, and Messrs. A. Tidey, Donald, Napier, and Hogarth, did much to enliven the rooms.

The new stethoscopes and specula by Messrs. Hawksley excited no more admiration than their practical value merits. Mr. Coxeter, jun., showed and explained Mr. Clover's ether apparatus; a most perfect and novel ovariotomy clamp, introduced by Mr. Spencer Wells; an ingenious, simple, efficient, and handy gag, invented by Mr. Brunton, of Leeds; also, a self-retaining female elastic catheter; and a very modified form of railway catheter. Amongst the other surgical instruments we saw nothing meriting special notice.

Refreshments were served on the ground floor, and at 10.30 P.M. what certainly had been a very successful entertainment terminated.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE annual general meeting of the Society was held on Wednesday, April 30th. The chair was taken at half-past eight o'clock by the president, Dr. Burrows.

Sir John Gregory Forbes was elected a vice-president in the place of Mr. Henry Sterry, deceased; Mr. William

Fuller was elected treasurer, to fill the vacancy caused by the death of Mr. R. S. Eyles. The following gentlemen were elected directors, to replace the six senior who retired by rotation—viz., Mr. Harston, Mr. Crookes, Dr. Crosby, Dr. Birkett, Dr. Monro, and Mr. Spencer Wells.

The secretary read a statement, from which it appeared the receipts of the Society for the year 1872 amounted to £3460, out of which a sum of £340 had been funded according to the laws; the grants amounted to £2601 10s., and the expenses of the Society to £299.

At the end of the year there were receiving grants from the funds fifty-five widows and thirty-four children, showing a decrease of nine children on the numbers of the previous year. Through the deaths of recipients and other causes, annual grants to the value of £336 had lapsed, and fresh grants amounting to £349 per annum had been made to eight widows and three children, increasing the liabilities of the Society by £13 per annum.

Legacies to the value of £785 were announced. The number of members continued much the same—viz., 9 honorary, 165 life members, and 231 annual subscribers. During the past year the Society had lost the valuable services of Mr. R. B. Upton, honorary member and solicitor, and those of Mr. Hammerton, V.P., Mr. Eyles, treasurer, and Mr. Martin Ware, formerly president.

A vote of thanks was unanimously passed to the editors of the medical journals for their advocacy of the Society, and kindness in inserting notices of the general meetings and courts of directors.

The proceedings were terminated by votes of thanks to the court of directors and to the president, Dr. Burrows, for taking the chair at the meeting.

Correspondence.

"Audi alteram partem."

HOSPITAL ABUSES.

To the Editor of THE LANCET.

SIR,—From time to time some remarks are made with reference to "Hospital Abuses," "Hospital Reform," &c. I send the following short notes for insertion amongst others upon this subject in THE LANCET, if you can find space for them.

With reference to hospital, infirmary, and dispensary practice: this kind of practice has been much abused—firstly, by those of the public using such institutions who can well afford to remunerate the members of the medical profession for their time, labour, and knowledge; secondly, by favouring the false conclusion on the part of the public—for the profession know otherwise—that in proportion to the numbers seen at such institutions, so are those holding the official medical and surgical appointments to such institutions better informed than others with respect to the nature and treatment of disease. Now, on the contrary, an increase in the numbers seen, without a proportionate increase in the medical and surgical staff, leads to superficial work and care in every way; and, with reference to the use of experience gained by such practice, the value of it is in the inverse ratio to the number of patients seen within a few hours beyond a rational limit—e.g., take the value of half a minute given to a case compared with from five to ten minutes; hence at the smaller institutions, where fewer patients are seen, there is frequently more careful work done and more useful experience gained than at the larger institutions where multitudes are seen.

In any proposed reform or regulation of this great social matter of medical charity, it might be as well to consider the value of the work done at the smaller public institutions, and the non-value of a great deal that is done at some of the larger institutions; where frequently a great many cases are as useless for good results as food is that is "bolted" but not "assimilated"; and thus it would appear that all the argument is not in favour of maintaining the larger institutions and neglecting the smaller ones, and this is a point worthy the consideration of the governors of and subscribers to the various medical charities—of those whose object is the relief of the really necessitous.

If we must have charitable medical institutions, let the number of patients and the number of the medical and surgical staffs be in better proportion than they are at present in many instances, and let the class of patients received be scrutinised by an independent officer.

I am, Sir, yours truly,

April, 1873. EDWIN PAYNE, M.D., M.R.C.P. Lond.

EASY-GOING CORONERS.

To the Editor of THE LANCET.

SIR,—Now and again I read in your columns critiques on coroners' inquests. A case occurred near this town recently which, I think, illustrates the need of criticism. I was in Stewkley (Bucks) on Monday, about five miles from here, when, hearing that a man had just died suddenly, I at once drove to the house, examined the body externally, and left word with the relatives to convey information of my visit to the authorities, as I imagined that a post-mortem examination would be required to elicit evidence wherewith to satisfy the jury. However, on visiting the place to-day, I learn that an inquest has been held without any medical evidence whatever, and that the jury arrived at the somewhat illogical verdict of "Died by the visitation of God through drink."

Yours very truly,

Leighton Buzzard, Beds., April 30th, 1873. J. A. HEDGES.

To the Editor of THE LANCET.

SIR,—The coroner for this (the East) division of Cumberland seems to hold similar opinions to the coroner for Kent. A few months since a man was found dead in a "crow" coal-working. The coroner was duly acquainted with the particulars of the case, and his reply was, that, as he was unwell and his deputy was away, no inquest would be held. Last week a boy aged twelve received injuries whilst working with lead waggon, and died three days after the accident. Notice was sent as before, but he refused to hold an inquest!

I am, Sir, your obedient servant,

April 29th, 1873. T. GARRETT HORDER, M.R.C.S.

To the Editor of THE LANCET.

SIR,—I think it nothing but right that you should know the manner in which affairs are conducted in Derbyshire.

On April 28th, the medical man of this village was summoned to a neighbouring farmhouse to see a man who was *supposed* to have tumbled off a stack. On the arrival of the assistant of the above medical man in fifteen minutes after the summons, he found the man dead. The following day an inquest was held by Mr. Whiston, of Derby, coroner for this district. The medical man was not asked to attend. The jury arrived at the following verdict: "Died from heart disease"! How in the world a dozen men, the majority farmers, could so soon find out the disease of the heart, is a wonder to me.

Since the inquest was held, I find that a short time previous to the man's death he was noticed to have put a large quantity of tobacco into his mouth, he being in the habit of indulging in this manner. Now, there is a possibility of the man having swallowed this, and so would get the direct effect of the nicotine.

I hope you will take notice of the above, as I feel sure things would soon in that case be altered.

I am, Sir, your obedient servant,

April 30th, 1873. ALPHA.

PARIS.

(*From our own Correspondent.*)

ANOTHER victim to the duties and dangers of our profession has just been carried off. Dr. Marc Girard, of Bordeaux, a young surgeon of great distinction, who promised to reach the foremost rank among the profession in the

South of France, has just died, at the early age of thirty-five, through a slight scratch of the finger whilst performing disarticulation of the shoulder on a patient presenting symptoms of putrid infection. He died after a few short days of illness, during which he was perfectly aware of the fatal character of his disease, and prepared for his sad end. At his funeral, which was attended by a large crowd, the Mayor of Bordeaux, M. Fourcand, expressed the feelings of sympathy and condolence which the town of Bordeaux at large manifested on this occasion.

The Italian journals mention the death of Professor Corticelli, of Florence, after a long and painful illness. The deceased, who was a physician of great erudition and an able teacher, had successively distinguished himself as Professor of Physiology in the University of Vienna, Professor of Hygiene at the School of Pisa, and, lastly, Professor of Forensic Medicine at Florence. He was a member of the Municipal Council of this latter city, and at his funeral the municipal councils of Florence and Vienna, and the three universities to which he had belonged, were largely represented.

On Thursday last, the Minister of Public Instruction of France, M. Jules Simon, accompanied by the Prefect of the Seine, paid a visit to the Sorbonne, with the object of examining the contemplated project of the transference of the Faculty of Sciences of Paris to some more extensive situation. They then visited the School of Medicine, and examined the various plans which are being prepared for rebuilding and enlarging the premises.

Each of the four large hospitals of Paris where clinical medicine is officially taught has recently been endowed with a special and complete laboratory for researches in morbid anatomy, histology, and medical chemistry. Morbid specimens will thus be examined in every way by the gentlemen attached to the laboratory, who are appointed by the Minister on a list of presentation drawn up by the professors at each hospital. Those now in office are Dr. Lionville, at the Hôtel Dieu; Dr. Nepven, at La Pitié; Dr. Cornil, at La Charité; and Dr. Hybord, at the Hôpital des Cliniques.

A medical club is now being organised in Paris, and, judging from the lists of subscribers which have already been published, the scheme promises to be very successful.

The Russian Committee for Help to the Wounded is actively engaged in taking all measures which may contribute to the organisation of an active and useful institution thoroughly prepared for all the emergencies of war. They have been especially active in establishing a considerable number of sub-committees and agencies throughout the empire. The object of all these local committees is to have everything ready prepared, especially in villages along railways, so that without loss of time the wounded may receive proper care and be transferred to more distant hospitals. Furthermore, a body of medical men is already being enlisted in each locality, so that all the army surgeons can be employed by the Minister of War for the army and the nearer ambulances.

The Municipal Council of Lyons have voted 20,000 francs to help to meet the expenses for preparing the session of the French Association for the Advancement of Science, which will take place in that city in August next. The Organising Committee is busy at work preparing this second session of the Association, which it is hoped will even surpass that of Bordeaux. The Hôtel de Ville of Lyons and the Palais St. Pierre will be employed for the meetings. The Committee is composed of three medical men, Drs. Ollier, Faivre, and Lortet, all of whom occupy high scientific and official posts; M. Piaton, President to the Council of Hospitals; Chantre, a distinguished geologist, and several engineers and *savants* of the town.

Paris, 6th May, 1873.

A LARGE ISSUE.—Mr. Aaron Coxhead, a carrier, died at Sunninghill, Surrey, on the 9th ult., at the patriarchal age of ninety-eight. He left 12 children, 50 grandchildren, 120 great-grandchildren, and a few great-great-grandchildren. At the age of ninety-four he voted at the last election for the county at Windsor, and only last season he was to be seen diligently cultivating his garden.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council on Thursday the following Members were admitted Fellows of the College:—

Bowring, George, L.S.A., Oxford-road, Manchester; diplom. memb. 1841.
Davies, William J., L.S.A., Newport, Mons.; diplom. memb. 1839.
Morris, John, L.S.A., Hereford; diplom. memb. 1837.
Rayne, Septimus W., L.S.A., Newcastle-on-Tyne; diplom. memb. 1839.

The following gentlemen have recently passed the primary examination in Anatomy and Physiology:—

W. C. Theed, A. Piggot, H. Cotton, H. H. Williams, Walter Mount, Augustus Dennis, Alfred Finch, J. W. Ball, George Davis, C. G. Lee, H. C. Taylor, Alfred Rawlins, W. H. L. Welchman, R. C. Richards, Thomas Brown, St. Clair B. Shadwell, and R. E. Carrington, Guy's Hospital, C. J. L. Bowling, A. H. Twining, A. G. Ward, Robert Sagar, F. W. Evans, C. G. Heard, W. H. Barker, J. T. Graham, Edward Flint, Arthur Pearce, and J. M. Derington, St. Bartholomew's Hospital; J. A. Aitkins, Charles Vipan, John Sheppard, N. T. King, and C. E. Pope, King's College; Silas Honeywill, W. C. Horsood, A. J. Pepper, W. R. H. Stewart, E. F. Cooper, P. Ballard, E. P. May, T. P. Lewis, A. A. Blakiston, G. H. Voelcker, W. R. Edmond, J. H. Wilson, G. Gosset, T. D. Fatmore, W. Y. Harvey, W. K. Layborn, T. O'Conner, J. W. Allen, G. A. Tailer, A. Phillips, W. Johnstone, and L. L. Thain, University College; W. M. Frobisher, H. E. Taylor, and J. P. Lockwood, Leeds; C. W. Doyle, James Little, J. H. Scott, H. J. Cotton, R. M. Prichard, and R. B. Hill, Edinburgh; J. E. Slaughter, W. C. Smith, R. W. Thomas, E. W. Paul, A. J. W. Pettigrew, A. V. Ford, G. H. Makins, H. A. Speed, B. G. Corney, J. M. Moody, J. Whitsed, E. Tredinnick, C. E. Truman, A. T. Coobe, G. F. Poynder, A. H. Boys, W. G. Dickson, S. W. T. Joseph, and E. J. Gurdon, St. Thomas's Hospital; W. G. Grace, Bristol and St. Bartholomew's Hospital; D. M'K. Ross, Glasgow; A. H. Wilson, H. Blake, C. Childs, and R. Humphry, St. George's Hospital; A. L. Douglas and Edward Tilston, Liverpool; E. Amphlett, Cambridge and Guy's Hospital; A. B. Wade, T. J. Hitchins, F. E. Henbeck, E. P. Balshaw, and G. C. Bouton, St. Mary's Hospital; S. B. Mason, London Hospital; A. H. Thompson, G. Newton, J. D. Dixon, and E. F. Piper, Newcastle-upon-Tyne; De B. Birch and O. E. B. Marsh, Bristol; Henry Davis, Middlesex Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 1st:—

Brown, George, Callington, Cornwall.
Jackson, Henry, Great Torrington.

As Assistant in Compounding and Dispensing Medicines:—

Smith, James William, Camberwell New-road.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Mitchell, C. J. C., Guy's Hospital.
Treharne, J. L., Guy's Hospital.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 30th:—

Bacot, William George, Blandford, Dorset.
Bassett, John, Birmingham,
Chepmell, Isaac Dobrée, London.
Hughes, Ambrose Cecil, Liverpool.
Mackay, David, Ross-shire.
Paley, Temple Chevallier, York.
Pritchard, William, Nottinghamshire.
Spence, Robert, Surg. H.M. Army.
Wilton, John, Sutton, Surrey.
Waghorn, Albert Richard, Surg. H.M. Indian Army.

The degrees of M.B. and C.M. were at the same time conferred on the following gentleman:—

M'Vail, John C., Kilmarnock.

THE Hospital for Sick Children, Great Ormond-street, has received £1000 from "E. W. D."

A MUSICAL entertainment was given at Guildford last week in aid of the Surrey County Hospital.

AT the Northumberland Quarter Sessions held last week, the Cattle Committee reported that the loss last year from foot-and-mouth disease caused by the importation of Irish cattle into the country amounted to at least £50,000.

THE ROYAL SOCIETY.—At a meeting of the Royal Society, held on Thursday, the 1st inst., the names, among others, of the following candidates recommended by the council, were read:—William Aitken, M.D.; Sir Alexander Armstrong, M.D., K.C.B.; John Beddoe, M.D.; and George Edward Paget, M.D. The election will be held on the 12th June.

CAPTAIN ROGERS, of the Bengal Staff Corps, will read a paper on "The Destruction of Human Life and Property in India by Noxious Wild Animals," at a meeting of the Social Science Association, on Monday evening next. The chair will be taken at 8 o'clock by Lord Napier and Ettrick, K.T.

PROPOSED ASSOCIATION OF MUNICIPAL AND SANITARY ENGINEERS AND SURVEYORS.—The second general meeting of engineers and surveyors to the various corporations of the kingdom was held at Birmingham, on Saturday, the 26th ult. The main objects of the Association are—the promotion of sanitary science and the interchange among its members of that species of knowledge and practice which falls within the department of an engineer and surveyor engaged in the discharge of the duties imposed by the Public Health and Local Government Acts.

"FINEST TEA."—At a meeting of the City Commissioners of Sewers on Tuesday, Dr. Letheby reported that his attention had been directed to the public sale in the City of 1000 boxes of adulterated green tea. He at once proceeded to the sale-rooms, where the tea was being sold by auction, but failing to get authentic samples, he went to the bonded warehouses in Upper Thames-street, and obtained them there. The tea was sold in lots of 250 boxes each, and was described as "Extra Fine New Season's Mayune Gunpowder Green Tea, ex *Sarpedon* steamship, from Canton." He had carefully examined the samples, and found that they contained from 40 to 43 per cent. of iron filings and 19 per cent. of silica in the form of fine sand, which had been cleverly mixed with and added to the leaves before curling, with a view to increase their weight and bulk. After the leaves were curled, they had been thickly covered with green pigment, and when infused in boiling water they produced a very turbid solution, offensive to the smell and nauseous to the taste. He recommended the Sanitary Committee to take immediate action in the matter. He also stated that on the 25th of April he was privately informed that a large quantity of unsound tea was being offered for sale in the City by a firm of brokers, and on inquiry he found that it was the salvage of about 1,150,000 lb. of tea which formed part of the cargo of the *Lalla Rookh*, a vessel wrecked on the coast of Devonshire on the 2nd of March last. The wet tea was brought to London a short time ago, and, having been redried and otherwise manipulated to give it a decent appearance, had been repacked in old tea-chests bought for the purpose, and then stored in a bonded warehouse. It consisted of 934 half-chests and 36 chests of congou, 24 half-chests of green tea, and 28 bags of tea-dust. All the samples were composed of exhausted and putrid leaves, and were utterly unfit for human consumption.

Medical Appointments.

ALFORD, H. J., M.D., has been appointed Consulting Surgeon to the Taunton and Somerset Hospital.

BARTON, F., M.R.C.S.E., has been appointed Resident Surgeon-Apothecary to the Warrington Dispensary and Hatton's Charity, vice Dunderdale, resigned.

BATEMAN, L. P., M.R.C.S.E., has been appointed Resident Medical Officer to the Dudley Dispensary, vice Walker, resigned.

CALDWELL, S. J. B., L.R.C.P.Ed., M.R.C.S.E., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool, vice Johnstone, resigned.

CARRE, F., F.R.C.S.I., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Ramelton Dispensary District of the Milford Union, and Medical Attendant to the Ramelton Fever Hospital, vice G. E. Carre, M.B., L.R.C.S.I., resigned.

CARRE, G. E., M.B., L.R.C.S.I., has been appointed Consulting and Visiting Physician to the Donegal County Lunatic Asylum, and Medical Attendant to the Royal Irish Constabulary, Letterkenny, vice Ashe, appointed Resident Medical Superintendent of the Londonderry District Lunatic Asylum.

CORBYNE, G. B., M.D., has been appointed Physician to the Taunton and Somerset Hospital.

DE RENZY, T., L.R.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilmeaden Dispensary District of the Waterford Union, vice Cullen, resigned.

FARRANT, S., M.R.C.S.E., has been appointed Surgeon to the Taunton and Somerset Hospital, vice H. J. Alford, M.D., appointed Medical Officer of Health for the Taunton District.

FREMUS, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Greatham District of the Hartlepool Union, vice Wilson, resigned.

HANIFIN, D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Darrymane Dispensary District of the Caherciveen Union, Co. Kerry.

HEY, H., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Royal Eye Hospital, Manchester, vice Glascott, appointed a Surgeon.

HOLLINSHEAD, F., M.R.C.S.E., has been appointed Medical Officer of Health for the King's Norton Rural Sanitary District: £100 for one year.

KERR, J. K., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Cough Dispensary District of the Cookstown Union, Co. Tyrone, vice Blair, deceased.

LAWTON, H. A., L.R.C.P.L., M.R.C.S.E., has been appointed Junior House-Surgeon to the Liverpool Royal Infirmary, vice Matthews, resigned.

LEACH, J. C., B.Sc., M.R.C.S.E., has been appointed Medical Officer of Health for the whole of the Sturminster Union: £80 per annum.

M'HARDY, M., M.R.C.S.E., has been appointed Surgical Registrar to Charing-cross Hospital.

M'KAY, W., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer for the Norton District of the Malton Union, Yorkshire, vice Young, resigned.

M'LEAN, A., M.B., C.M., L.R.C.S.Ed., has been appointed Medical Officer for the Portland District of the Weymouth Union, vice Carruthers, deceased.

MARTIN, J., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Inkberrow District of the Alcester Union, vice Bush, resigned.

MAYBURY, A. C., M.R.C.S.E., has been appointed Resident Medical Officer to the Farringdon Dispensary, Bartlett's-buildings, vice Elliott, resigned.

PROSSER, B. A. S., M.R.C.S.E., has been appointed a Surgeon to the Cannon-street Male Adult Provident Institution, Birmingham.

PYLE, C. J., M.R.C.S.E., has been appointed Medical Officer for the Amesbury District and the Workhouse of the Amesbury Union, Wilts, vice C. Pyle, M.R.C.S.E., resigned.

RAYNER, W., M.R.C.S.E., has been appointed Medical Officer for the St. Mary District, St. Marylebone.

ROE, J. R., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for District No. 3 and the Workhouse of the Bridgnorth Union, vice Thursfield, resigned.

SHEA, Dr. J., Medical Officer of Health for the Reading Urban Sanitary District, has been appointed to the Rural District, at an additional salary of £25 per annum.

SIMPSON, G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Christchurch District of the Parish of Camberwell, vice Johnson, resigned.

STUART, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for District No. 4, and Public Vaccinator for Districts Nos. 3 and 4, of the Bridgnorth Union.

WALKER, W. H., M.D., has been appointed Medical Officer and Public Vaccinator for the Barton District of the Darlington Union, vice Easby, whose appointment has expired.

WALSHE, D., L.R.C.P.Ed., L.R.C.S.Ed., L.K.Q.C.P.I., has been appointed Senior Resident Medical Officer to the Chorlton Union Workhouse, vice Clements, deceased.

WHITE, Dr. J. B., has been appointed Medical Officer for District No. 2 of the Hackney Union, vice Aveling, resigned.

WHITE, G. B., M.R.C.S.E., has been appointed Assistant Resident Surgeon to the Nottingham Dispensary, vice Johnstone, resigned.

WHITMARSH, W. M., M.D., M.R.C.P., has been appointed Medical Officer of Health for the 8th District of the Brantford Union.

WHYTE, G., M.D., has been appointed Medical Officer and Public Vaccinator for the burghal part of the Parish of Elgin, vice Robb, deceased.

WILLIAMS, E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Llansantfraed District and the Workhouse of the Aberayron Union, Cardiganshire, vice James, resigned.

WILLIAMS, W. H., M.D., has been appointed Medical Officer of Health for the Sherborne Urban Sanitary District: £25 per annum.

WRIGHT, S. H., M.D., M.R.C.P.Ed., has been appointed House-Surgeon to the Poorhouse, Barnhill, Barony Parish, Glasgow, and Medical Superintendent of the Lunatic Asylum, vice M'Gregor, deceased.

Births, Marriages, and Deaths.

BIRTHS.

BUZZARD.—On the 29th ult., at Grosvenor-street, the wife of Thos. Buzzard, M.D., of a son.

JORDISON.—On the 26th ult., at Malpas, Cheshire, the wife of Christopher Jordison, L.R.C.P.Ed., L.M., M.R.C.S.E., of a daughter.

MALINS.—On the 28th ult., at Old-square, Birmingham, the wife of Edward Malins, M.D., of a daughter.

NASH.—On the 4th inst., at Royston Lodge, Ladbroke-grove, the wife of Edmund Nash, M.D., of a daughter.

PARK.—On the 4th inst., at Mount-terrace, Eglinton-road, Woolwich, the wife of G. Park, M.D., Surgeon Royal Artillery, of a son.

WILSON.—On the 2nd inst., at Church-street, Grantham, the wife of Mr. Richard Wilson, of a daughter.

MARRIAGES.

BELLINGHAM—BECKTON.—On the 23rd ult., at St. John's Church, Kale's-hill, Dudley, Joseph Bellingham, M.R.C.S.E., to Betsey Jane Beckton, niece of Dr. Hocton, of the same place.—No Cards.

LOWTHER—FELL.—On the 24th ult., at Cartmel, Lancashire, Rich. Lowther, M.D., M.R.C.S.E., to Elizabeth, second daughter of the late John Fell, Esq., of Tanley House, Cartmel.

SANDES—MACNAMARA.—On the 8th inst., by special licence, at Stephen's-green, Thos. W. Sandes, Esq., eldest son of the late Stephen C. Sandes, Esq., of Oak Villa, Tralee, Co. Kerry, to Amy, eldest daughter of Rawdon Macnamara, M.D., Ex-President of the Royal College of Surgeons in Ireland.

DEATHS.

DINGLEY.—On the 2nd inst., Thos. K. Dingley, M.R.C.S.E., of Winkleigh, Exeter.

DOWNING.—On the 30th ult., Dr. Chas. T. Downing, late of Harley-street, aged 73.

JACKSON.—On the 4th inst., at Scotch-street, Whitehaven, Ann, the wife of Thomas Jackson, M.D., aged 33.

KELK.—On the 3rd inst., John Kelk, M.D., of Scarborough, aged 75.

PARMITER.—On the 29th ult., at Dorchester, H. B. Parmiter, M.R.C.S.E., of Wool, aged 29.

PERREY.—On the 29th ult., Robt. Perrey, C.M., of Marden, Kent, aged 68.

ROBINSON.—On the 13th ult., Thomas Robinson, M.R.C.S.E., of Alton, Cheadle, Staffordshire, aged 56.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments)

FOR THE WEEK ENDING MAY 8TH, 1873.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks.
May 2	30·10	N.W.	46	50	...	68	44	...	...
„ 3	29·76	S.W.	49	54	...	65	45	...	...
„ 5	29·53	S.W.	45	47	...	54	43	...	...
„ 6	29·87	W.	45	49	...	58	42	0·08	...
„ 7	29·87	S.W.	45	47	...	59	43	0·06	...
„ 8	29·58	W.	46	49	...	...	43	0·55	...

Medical Diary of the Week.

Monday, May 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, May 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY. — 8½ P.M. Dr. Burdon-Sanderson, "On the Infective Product of Acute Inflammation."

Wednesday, May 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
EPIDEMIOLOGICAL SOCIETY.—8 P.M. Annual Meeting for the Election of Officers and Council.

Thursday, May 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
HARVEIAN SOCIETY OF LONDON. — 8 P.M. Last Meeting of the Session.—Dr. Ballard, "On the Signs of Congenital Syphilis."

Friday, May 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
MEDICAL MICROSCOPICAL SOCIETY. —8 P.M. Mr. Atkinson, "On the Preparation of the Brain and Spinal Cord for Microscopic Examination."—Dr. Osler: "The Action of certain Reagents on White Blood-Corpuscles."
Dr. F. Payne: "Some points in the Structure of the Omentum."

Saturday, May 17.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

LABOURERS' COTTAGES.

A BILL endorsed with the names of Mr. Whitwell and Mr. Wren Hoskyns has been brought into the House of Commons, its object, as described in the preamble, being "to encourage the erection of dwelling-houses suitable for persons employed in manual labour, and to afford increased facilities for the acquisition of sites for such dwelling-houses." The fundamental provision of the Bill is to enable corporations of boroughs so to deal with lands vested in them that either by sale or lease in building plots such lands may be made available for the purpose contemplated.

THE letter of *Mr. Charles Yule* shall be published in our next issue.

HOLMAN'S MOIST CHAMBER AND CURRENT CELL.

THE *Philadelphia Medical Times*, in a Report of the Biological and Microscopical section of the Academy of Medical Sciences of the 3rd March last, gives an account of what appears to us a highly ingenious and simple contrivance, which may, with some modifications, as one of the speakers remarked, hereafter prove useful to scientists as a very delicate differential thermometer. The contrivance is the invention of Mr. D. S. Holman, Actuary of the Franklin Institute, and consists of an improved glass slide for microscopes. This slide is composed of the usual slip of glass, such as is ordinarily used by microscopists, on the upper side of which two concave depressions are ground, and connected by one or more shallow canals, carefully cut in such a way as to present on transverse section a gradually increasing depth up to about $\frac{1}{1000}$ of an inch. Mr. Holman explained that in using this slide each excavation is to be partly filled with the fluid under inspection, and the remaining space in each is to be charged with common air; the large thin glass cover being applied so as to seal up both cavities and the communicating canal, over which it will be retained, as stated by Mr. Holman, by atmospheric pressure alone. In this way is secured what the inventor terms a double thermal pressure chamber, either division of which can be made to emit a minute portion of its contents through the delicate canal, and pass the same into the opposite depression, by means of the sensible heat radiated from a single finger of the operator brought near it for that purpose. The most complete control is said to be obtained over even a single red blood-corpuscle, which may be arrested in the canal, held stationary under observation, and actually turned over in the focus. The fluid in the communicating canal does not run down into the concavities, owing to the force of capillary attraction, which causes the liquid always to occupy the smaller crevices, whilst the air-bubble fills up the larger space. The inventor said that a drop of blood the size of a pin's-head was large enough for examination, all that was required being that there should be fluid enough to fill up the little canal, and make a very narrow rim of liquid around the edges of the two cavities it joined. Several of the members present tested the action of Mr. Holman's little invention, which met with hearty approval. Dr. Isaac Norris, in dwelling upon the principle involved in it—namely, the application of the microscope to the detection and observation of those minute currents resulting from expansion of the air occupying either cavity, in consequence of an almost infinitely small rise in temperature, as compared with that of the other side,—remarked that "Holman's improved moist chamber and current cell" would likewise prove of great service in studying the phenomena of crystallisation.

A St. Thomas' Man would like the profession protected from the systematic prescribing of chemists and druggists, as is done abroad. He complains, like "A Bart's Man," of the fee of £5 5s. for registration.

NEW SYDENHAM SOCIETY: TROUSSEAU'S LECTURES, VOL. V.

To the Editor of THE LANCET.

SIR,—Though this volume is better edited than the fourth, it is not a book of which the Committee can be proud. There is an index which appears to be good; but there is no list of errata. Will you kindly allow me the space for a few of the more serious errors which have come under my eye during perusal.

Page 116, line 1, for "hæmatic," read "hepatic."
„ 140, „ 2, for "alcoholia," read "acholia."
„ 168, „ 8 from foot, for "demonstrated," read "assumed."
„ 200, „ 6 from foot, read "term a special kind of anæmia which may induce lesions of glanda."
„ 219, „ 2, for "chlorosis," read "anæmia."
„ 220, „ 12 from foot, before "amenorrhœa" insert "chronic."
„ 224, „ 13, for "peritoneum," read "peritonitis."
„ 229, „ 13 from foot, for "the tubal," read "in the tubal."
„ 250, „ 5 from foot } for "ossicula," read "oscula."
„ 257, „ 4 }
„ 257, „ 11, read "unless these have been obliterating."
„ 272, „ 15, for "and lacteous," read "or lacteous."
„ 273, „ 7 from foot, for "with," read "ut."
„ 339, „ 13, for "alcoholic," read (?).
„ 406, „ 3 from foot, for "anterior," read "inferior."
„ 419, „ 6 from foot, for "contention," read "connexion."
„ 428, „ 17, for "manus-polite," read "manus-polito."

The editor is doubtful how to spell the first syllable of *æsa* when it enters into English words, and uses indifferently and about equally the diphthong and the simple vowel. The difference between "anæmia" and "anemia" is not much; but in such a word as "cholesteræmia" the non-use of the diphthong is a *suggestio falsi*; "leucemia" is not only a misspelling, but suggests a mispronunciation.

I pass over such words as "palor," "emenagogue," "egophany," "typhilitis," "ectropia" (for "ectopia"), &c.; however annoying to the eye, they cannot occasion any misunderstanding. What is the meaning of the word "ostalgitis" (page 421)?

Yours respectfully,
Stoke Newington, April 26th, 1873. ROBERT H. COOKE, F.R.C.S.

HYDRATE OF CHLORAL.

WE should be glad to ascertain any facts that may happen to have come under the notice of members of the profession regarding the insidious action of hydrate of chloral when used for some time (as is so frequently the case in the present day) by individuals with the view of obtaining its hypnotic effects.

A Discontented Army Surgeon.—We have referred to the subject frequently of late, and we must await further explanations from Mr. Cardwell before we can pronounce a final opinion.

Mr. Manning's "Note concerning Hydrate of Chloral" shall appear in our next impression.

INEBRIETY IN INDIA.

Medical Missionary (Southampton) must be prepared for the rapid, though recent, growth of drinking habits among educated Hindoos. The orthodox as well as the reforming native equally realises the gravity of the phenomenon. Temperance Societies memorialise the Bengal, Bombay, and Supreme Governments for the suppression of the vice. The liquor duties, except on beer and light wines, which are comparatively innocuous, would bear increase much beyond what the Government in its last budget has attempted. The Bengal Legislature has just brought the cultivation and preparation of intoxicating drugs, as well as their sale, under the Board of Revenue, which it has further empowered to make rules for licences more stringent; while the natives are demanding, and would certainly obey, a Permissive Bill. The rich absentee Hindoo Zemindars in Calcutta are addicted to brandy, and are killed off in greater numbers than the Mussulmans, who prefer opium and other drugs. "The numerous dispensaries," says *The Times* correspondent, "kept by natives in and around Calcutta are used as places of carousal. Brandy is supplied on the premises during the night, and the police are deceived. But, in truth, the police are so frequently in league with the liquor sellers that an order has just been issued on the subject." Sad, indeed, would it be if the fire-water which accompanies the white colonist should prove as disastrous to the Hindoo of the East as it has done to the Huron of the West!

Candidus Imperti, (Cambridge.)—Berlin is not a desirable place of sojourn for the medical student. The attractions of its school are hardly sufficient to outweigh the risks incurred from its terribly defective sanitation. Owing to its exorbitant house-rents, the number of students at the University is smaller than at any time during the last ten years. The University authorities are trying to remedy the evil by establishing a boarding-house for the *alumni* under their own supervision.

Dr. Dale (Plymouth) desires to acknowledge the receipt of £5 from Dr. John Miller (Kurrachee, India) for the widow and two children whose case appeared in THE LANCET of March 8th.

C. A. D.—The attention of the police authorities should be called to the matter.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—The picture you have drawn in your issue of the 1st March of "Army Medical Reorganisation" under the new Warrant is very glowing, and, were it all as you represent, I, as an old officer who has served for twenty years in all parts of the world, would hail the innovations as a fresh start in the right direction; but I feel that, however much I may wish to look on the best side of the question, I cannot persuade myself that the Warrant and the special Circular of the 6th March is anything but a retrograde step, and I believe that this is the opinion of most medical officers. As you have had your say in the matter, I call upon you, in justice, to permit me to lay my opinion and that of my brethren in the service before the public.

Had we been made "one general corps of surgeons," and treated in every respect as the Royal Engineers are, the officers of the department would, I am convinced, with one voice have commended the wisdom of the Director-General who inaugurated such a change; but the general feeling of the department is that we have been sacrificed, and allowed to fall to the ground between two stools—*Horse Guards jealousy* and *Treasury niggardliness*. The effect of the new Warrant on the senior executive medical officers is considerably to reduce their emoluments, while at the same time they are liable to be moved about more suddenly, and have had a large amount of extra labour and responsibility thrown on their shoulders; and one of the worst features of the case is that this extra labour and responsibility is not of a professional character, but that they are compelled to act as storekeepers and clerks.

The exception in Clause 5 of the new Warrant (introduced, no doubt, at the instance of the Horse Guards), which deprives medical officers of their army seniority when attached to regiments, will have the effect of making them always junior field officers; and though they may have been longer in the service holding field rank, they will, in consequence of the short tenure of regimental appointments, invariably be deprived of the choice of quarters, or the right to draw lodging money in lieu thereof, which is more important to the family man; and in every service question, where seniority is of value, the doctor will find himself at a discount. For years I served in a regiment, taking precedence of all except my commanding officer. Were I to return to that regiment, under present rules, I would find myself superseded by a man who was a junior lieutenant at the time that I joined the corps ten years ago with the rank of major. Such a state of things, though it may suit the Horse Guards and colonels of regiments, is not justice; and, until it is rectified, the officers subjected to it will be discontented, and unwilling and, therefore, unprofitable servants to the State.

By all means let us be a separate scientific corps like the Royal Engineers; but give us the allowances, rights, and precedence of our rank unburdened by conditions that render the rank a farce. Under the new rules a surgeon-major doing duty with a regiment, so far as material advantages go, takes rank only as senior captain. His rank of major is nominal, and only affects him as regards his liability to higher subscriptions and deductions.

The Engineers receive double pay when on foreign service; and if they occupy Government quarters, pay for the same only a moiety of the local lodging allowance, having the option to keep their money and provide their own quarters should they prefer doing so. Let the medical officers be treated in the same way; let them have a consolidated pay at home, to include all allowances—viz., house rent, fuel, light, forage, stabling, grooms, and servants, with an increase on foreign stations, and the option of drawing rations in kind or money as suits their convenience. Such consolidated pay to be used as the basis of calculation in determining the pension, with the absolute right to retire after twenty years' service on five-tenths, and after twenty-five years' service on seven-tenths, of the consolidated pay, which would be at about one shilling per day for each year's service, and the change would be received with gratitude, particularly if moves were rendered less frequent. Under such conditions the extra work would be considered a fair equivalent for the advantages of a more certain income and settled location, with the prospect of retirement on a more liberal pension.

It is evident that the authorities, taking advantage of the carelessness of young men as to the pension, which seems a long way off, slip out of improving it, and try to make the prospects of army medical service appear to the uninitiated better than they really are, feeling that so long as they can secure candidates to fill up the vacancies it little matters whether the seniors are contented or not, as they know that few can afford to throw away fifteen to twenty years' service, and that, though they may grumble, they will continue to serve. In the event of a war they may find themselves left in the lurch.

It is notorious that when the surgeons in India remonstrated at their ranking only as captain when their comrades of similar departmental grade ranked as majors at home and in the colonies, the solid allowances of surgeon were curtailed, the charge of a regiment being reduced in value to the extent of £300 per annum—a difference which to a family man represents more than half, nearly two-thirds, of his savings while on Indian service. This unjust saving to Government was the result of doing away with staff or charge pay and head money, limiting the surgeon in charge of a regiment to the bare pay and allowances of his comparative rank, placing him in a different position to every officer in charge, combatant or departmental. From this saving the increment to the assistant-surgeon's pay was provided without any increased charge to the public, Peter being robbed to pay Paul.

The same policy has been observed in the changes inaugurated by the new Warrant; and although the number of assistant-surgeons, or, as I should under the new rules call them, surgeons promoted during the present year, will be considerable, there has been little or no increase in the estimates; but allowances have been reduced on station, so as to meet, or nearly meet, the increase of pay to the men promoted.

The frequent moves, involving compulsory sacrifice of furniture, and to the family man heavy travelling expenses, reduce his emoluments to an extent that is more than equal to all the allowances put together.

I do not think that it is fair to Sir Galbraith Logan to father the Warrant on him, as it is well known to the officers of the department that the present Government would, on grounds of economy, have introduced it long since had he not been firmly opposed to it, and it is shrewdly suspected that he has been induced to remain another year in office while the changes were being introduced, simply to relieve his successor of the onus of having imposed an objectionable and unjust Warrant on his department.

As you have all along advocated the unification of the department, I do not ask you to call for a return to the regimental system; but I trust that you will use your influence to have the objectionable clauses of the Warrant and Circular rescinded, and replaced by more just and liberal ones; that you will advocate a limitation of service in the higher ranks, so as to give more of us a chance of the prizes of the service, and to all of us who retire as executive medical officers more liberal pensions.

I am, Sir, your obedient servant,

April 26th, 1873. AN OLD SURGEON-MAJOR.

To the Editor of THE LANCET.

SIR,—With reference to the lengthy correspondence you have so kindly inserted in your valuable journal connected with the above much-vexed question, I beg to suggest that, as Mr. Secretary Cardwell was kind enough to state in the House of Commons, in answer to a question put by Colonel Arbuthnot on the 1st of May, "that he would be pleased to rectify any grievances connected with said Warrant upon proper representations being made to him on the subject, a deputation wait upon him, consisting of two surgeons-major and one surgeon or more, and thoroughly explain the grievances under which the department is now labouring; and I entertain not the slightest doubt but that he will rectify them as far as lies in his power. I beg further to add that I do not for one moment imagine that the main features of this iniquitous Warrant emanated directly either from Mr. Secretary Cardwell or our very respected chief, Sir Galbraith Logan.

I am, Sir, your obedient servant,

May 5th, 1873. STAFF SURGEON-MAJOR.

L.F.P.S. (Glasgow) is referred to an interesting paper by Dr. D. J. Macgowan before the North China Branch of the Royal Asiatic Society at Shanghai, and since republished. The Chinese make no distinction between their materia medica and their materia alimentaria—between therapeutic and dietetic agents. Nearly all portions of animals, the human frame included, are supposed to be efficacious in the treatment of disease. In preparation they are for the most part subjected to ordinary culinary manipulation. "Mutton wine" is a favourite remedy as a restorative, and is held to reinvigorate the stomach, kidneys, and testes. Dr. Macgowan gives details as to its mode of preparation, its therapeutic effect, and a case in which it proved successful.

Pharmacien, (Cannes.)—No; it was Francis Drake (not Sir Walter Raleigh) who brought the *Solanum tuberosum* to Europe. Nicotiana, or tobacco, conveyed from America in 1540, was introduced for smoking purposes into Germany by the soldiers of Charles V. who had served in the Low Countries. It was used as snuff after the Thirty-years' War. At the Court of Louis XIV. the Princesses of the blood sported clay pipes, and (it is no secret) relieved the dryness of the mouth by repeated "nips" of brandy. Courts have improved since then.

An Imbecile.—A licence is not necessary for the reception of a single lunatic patient; but the house into which he is received comes under the supervision of the Commissioners in Lunacy. Inquiry should be made of the Commissioners for information as to the duties of the person receiving a lunatic into his house; or our correspondent may consult the work of Dr. Sabben and Mr. Browne, or Glen's Laws affecting Medical Men.

Enquirer.—Next week.

Mr. Benjamin Duke should apply to Mr. Van Praagh at the School for the Deaf, 12, Fitzroy-square. There can be no doubt of the superiority of education by speech and lip reading if it is properly conducted.

Dr. Cunningham's paper on the "Hæmatozoon" has been received, and shall be published at an early date.

CHINESE USE OF SHAD IN PHTHISIS.

PHYSICIANS of the "Flowery Land" assert that shad, particularly shad-oil, is of much efficacy in consumptive diseases. The fish seems identical with the *clupea* of the American coast. In Shanghai it is known as *su'-ng, shi-yü*, or periodical fish; enters the Yangtze and adjacent waters in May, and for about sixteen weeks is in season. The earlier in the season it is caught, the higher the prices it commands. The principal officials have the first claim for it, and it is an article of tribute to the Emperor. In all diseases in which cod-liver oil is used, it is equally efficacious; its alterative and stimulant properties being closely analogous to those enumerated as composing the officinal *oleum morrhuæ*.

Hippocratides, (Norwich.)—All M. E. Littré's writings are well worth the attention of the philosophically-minded physician. We have more than once recommended his beautiful work, "Médecine et Médecins" to the notice of the profession. Equally profitable would be the perusal of his last volume, "La Science au point de vue philosophique." It is a history of the human mind for the last fifty years, and is inspired by the profoundest faith in the future of science.

WE cannot find in the Medical Register or Medical Directory the name of the gentleman who has addressed to us a communication from Hackney-wick on the subject of Hospital Out-patient Reform.

J. N. T., (Bradford.)—Wünderlich's work, translated by the New Sydenham Society, is procurable of Mr. Lewis, Gower-street, W.C.

REPORT OF THE VETERINARY DEPARTMENT FOR 1872.

To the Editor of THE LANCET.

SIR,—"We are all very intimately concerned in the question of meat-supply." It is for this reason, Sir, and because I have worked and watched this subject with eager interest for many years, that I call on the medical profession through your columns to support those who are seeking for reforms in a department in which the veterinary element is not only weak, but does not represent the views entertained by the most advanced authorities on the subject of animal plagues. My excuse for this appeal is that it is only amongst members of the medical profession that an opinion worth having can be obtained as to the wisdom of sanctioning partial measures of disease-prevention, which tend to fill the butchers' stalls and the milk shops with the produce of diseased animals as human food. I do not ask medical men to turn cattle doctors, and I protest against a medical man having held for years the *chief*, the *responsible*, and the *most lucrative* post in the Veterinary Department, and being allowed to publish reports in which many important facts and opinions are actually repudiated by his veterinary advisers. This is no inconsiderate charge I bring against the Veterinary Department; and it may strike you, Sir, as extraordinary, however much you advocate the interests of medical men, that the persons who have thought and worked most at cattle plagues should have been treated in this country with neglect, and indeed absolute contempt. What would you, Sir, say if a veterinary surgeon, however able and however accomplished, were placed in Mr. Simon's place at the head of the Medical Department of the Privy Council? Would the country bear with such an arrangement for a single day?

I have retired from the veterinary profession, but have never ceased to direct my attention to the question of our meat-supplies, and the means to be adopted for the eradication of foreign cattle diseases. You say, Sir, that "the medical history of the contagious and infectious diseases of animals forms in reality an important study which does not lack interest to the epidemiologist." Will you, Sir, or any of your readers gather for me a few grains from the chaff—the masses of error promulgated by the head of the Veterinary Department? I do not wish to shield the veterinary surgeons of that department from their full share of responsibility. They may have consulted their own interests; but, in my opinion, they did not consult the interests of the profession to which they belong by remaining at their posts when a member of another profession was placed over their heads. I know the fiction of administrative and professional responsibilities being divided. But do you think, Sir, Mr. Simon would allow his opinions to be filtered through any administrative officer when asking from a responsible Minister the adoption of some important disease-prevention measure?

It is painful to have to speak plainly; but the cause of truth, of science, and of the nation's wants induces me to speak out in terms that cannot be mistaken. The veterinary advisers, inspectors, or whatever they choose to call themselves, always open their eyes when too late, and whilst positively defending the slaughter and sale of diseased animals as human food—whilst striving to prove that the losses by cattle diseases are much exaggerated—whilst proclaiming that the extermination of foot-and-mouth disease and the lung plague is impossible in this country,—they disregard all the experiences and investigations collected at home and abroad, and which are in direct opposition to their views.

All that Professors Simonds and Brown state as to the failure of attempts to communicate pleuro-pneumonia by inoculation is in direct opposition to fact. Professor Simonds committed himself many years since to an unfavourable opinion respecting inoculation, and to the erroneous views he first adopted he has adhered with a determination which is simply inexplicable. In time he will, doubtless, modify his opinion, as he usually has done, as, for instance, respecting the foreign origin of foot-and-mouth disease, &c.

In asking you to publish this protest I am anxious it should be known that veterinary science is not so deplorably impotent as the authorities of the Veterinary Department would seem to indicate. We can exterminate the maladies which interfere most with an abundant and wholesome meat-supply, and it is not necessary to advocate the *harmless* character or vindicate the *nutritious qualities* of the flesh of cattle slaughtered when suffering from lung plague in order to feed our people. Stop the traffic in diseased meat, and the country will soon save millions upon millions sterling annually by the adoption of rational means of cattle-disease prevention! A medical man need not attempt to answer an unanswerable question as to the wholesomeness of the flesh of an animal suffering from any special disease. The traffic in diseased animals is pernicious, demoralising, and perfectly unwarrantable.

I am, Sir, your obedient servant,

Great Winchester-street-buildings, E.C., JOHN GAMGEE.
April 15th, 1873.

Mr. W. H. Hunt.—If our correspondent will refer to the Pharmacy Act of 1868, he will find, we think, that there is nothing which authorises a certificated assistant to an apothecary, as such, to keep open shop for the retailing of poisons, or to assume the title of "chemist and druggist" or any of the other titles specified in the Act, or exempts him from the obligations attaching to the use of those titles, or to keeping such open shop.

Mr. E. Ward-Jackson, (Clifton.)—We congratulate our correspondent upon his recovery, but regret that we cannot publish the paper he has kindly sent.

Mr. J. Adolphus Smith (Deal) will find the information he requires in the Students' Number of THE LANCET. He would obtain all particulars by a letter addressed to the Director-General of the Naval Medical Service, Somerset House.

Dr. Milner Fothergill is thanked.

Mr. F. J. Diamond (Birmingham) may read in *The Times* of the 8th instant a graphic account of the grossly insanitary condition of Naples. The smells are multitudinous in number and Malebolgian in foulness, and the water-supply is as deficient as that of a Spanish village, and as impure as that of an Irish one.

An English M.B. (Edinburgh) will be all the better for a Spanish diploma, though it is not imperatively required.

Captain Acklam, (Cheltenham.)—We have not received the communication and diagram alluded to.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson, London; Dr. Brown-Séquard, New York; Dr. Lankester, London; Mr. Harry Sims, New York; Mr. Teevan, London; Mr. Manning, Salisbury; Mr. Holt, Hull; Dr. M'Gowan, San Francisco; Mr. Baber, London; Mr. Metcalfe, Chatteris; Dr. Fothergill, London; Mr. Davison, Dublin; Dr. Jackson, Whitehaven; Mr. Buck, London; Mr. Whiffen, Chichester; Mr. Belton, Southchurch; Mr. Ricketts, Liverpool; Mr. J. Gate, London; Mr. Mather, Hampton; Dr. Carpenter, London; Mr. Cotton, Wakefield; Dr. Eyding, Neath; Mr. Hughes, Liverpool; Messrs. Arnold and Sons, London; Dr. Dale, Plymouth; Dr. Pritchard, Trynham; Mr. Baynes; Mr. Ormrod, Farndon; Mr. Etty, Scarborough; Mr. Brooks, Broomhall; Mr. Fulford, Hackney; Mr. Newton, Huntingdon; Mr. Gilfillan, Stirling; Dr. Marsden, London; Mr. Smith, Deal; Messrs. Evans and Wormull, London; Mr. Burton, Burnley; Mr. Davies, Wrekenton; Mr. Yule, Cambridge; Mr. Bourhill, Tamworth; Mr. Townley, Henley; Mr. B. Young, Tewkesbury; Mr. Maclean, Ipswich; Mr. Inman, Dursley; Mr. Brough, Ware; Dr. Monckton, Rugeley; Mr. Tegetmeier, London; Mr. G. Eastes, London; Mr. Graham, Worley; Dr. Vitalis, Constantinople; Mr. Holt, Southampton; Mr. Evans, Beddington; Mr. Hunt, Croydon; Dr. J. Shea, Reading; Mr. Bevan, Tarporley; Mr. Perkins, Hull; Dr. Hoskings, Richmond, U.S.; Mr. Armley, Downham; Dr. Tomlinson, Curragh Camp; Mr. Hardyman, Macclesfield; Mr. Gayton, London; Mr. Leach, Blandford; Mr. Hickson, Bodmin; Mr. Gray, Sturry; Mr. J. Cheever, Belfast; Mr. Keene, Stafford; Mr. Carsley, Great Malvern; Mr. Bird, Waltham; Dr. Foster, Leeds; Mr. Wintle, Bristol; Mr. Woolf, Cork; Mr. B. Hilton, Sunderland; Mr. A. Poulton, Chatham; Mr. H. Telford, Chesterfield; Dr. Ambler, Hemel Hempstead; Mr. Bishop, Tunbridge; Mr. Bellingham, London; Mr. Lascelles, Lincoln; Dr. Cory, Buckhurst Hill; Mr. Causey, Walworth; Dr. Nichols, London; Mr. Wagstaffe, London; Mr. Stride, Brighton; Dr. Whitmarsh, Hounslow; Mr. White, London; Dr. Swift, Leamington; Mr. Stephens, Ilminster; Mr. F. E. Jackson, Eastworth; Mr. Robinson, London; Mr. James, Bawtry; Dr. Waters, Liverpool; Mr. Chambers, Hull; Mr. Pooley, Weston-super-Mare; Mr. Scott, Manchester; Dr. Mason, Sheffield; Mr. Good, Dorchester; Mr. Veitch, Middlesborough; Mr. Jackson, Clifton; Mr. Lawton, Lambeth; Mr. Davies, Southfield; Mr. Cotterell, Cleveland, U.S.; Mr. Jones, Weston-super-Mare; Mr. Clarke, Bristol; Mr. Dickson, Buxton; Mr. Jordison, Malpas; Dr. Lowther, Edinburgh; Mr. Orton, Singapore; Mr. Matthews, Carlisle; Mr. Harlwood, Dundee; Mr. Salter, Portland; Mr. J. Potts, Blackburn; Dr. Fox, Broughton; Mr. Blackett, London; Mr. Connelly, Queenstown; Mr. Raven, Broadstairs; Dr. Cornish, Taunton; Mr. Bailey, Hungerford; Dr. Cunningham, Calcutta; Mr. R. Greenway, Shrewsbury; Mr. Groves, London; Mr. Eynford, Horley; Dr. Talbot, Leeds; Mr. Lant, Rynerford; Mr. Porter, Bridgwater; Mr. King, London; Mr. Willmott, Aberdeen; Dr. Malins, Birmingham; Mr. R. Wilks, Kingston; Mr. Cooke, Cardiff; Mr. Ellis, Dublin; Mr. B. Duke, Clapham; Mr. R. Walker, St. Andrews; Mr. Moore, Winchester; Mr. Deakin, Hereford; Mr. J. Birks, Callander; Mr. Bardell, Buxton; Mr. Horton, London; Mr. Wooding, Manchester; Mr. Eutwistle, Gorey; Mr. Charteris, Aylesbury; Mr. Mervin, Brighton; Captain Acklam, Cheltenham; Mr. Simpson, Watford; Mr. James, Bath; Mr. Garnett, Llangollen; Mr. Henry, Leeds; Messrs. Handfield & Crosse, Exeter; Mr. Boyce, Burnley; Mr. Dawson, Chester; Mr. Hine, Sheffield; Mr. Brodie, Leeds; The Medical Registration Office; L.R.C.P. Lond.; Beta; H.; J. N. T.; Staff Surgeon-Major; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Y. Z.; An On-looker; Medicus; G. Z. H.; An English M.B.; Sleepy; A Suffolk Surgeon; C. P. U.; H.; The President of the Pharmaceutical Society; An Indian Medical Student; B. Y. W. X.; &c. &c.

Bradford Daily Telegraph, Warrington Advertiser, Isle of Man Times, Evening Standard, Weston Mercury, Southampton Times, Hampshire Independent, Dublin Evening Mail, Boston (U.S) *Medical and Surgical Journal, Blackburn Times, Local Government Chronicle, Derby Reporter*, and *Glasgow Herald* have been received.